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ORIGINAL ARTICLES.

NERVOUS MATTER, WHAT IS IT? AUDITORY NERVES.

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THE AUDITORY TRINITY.

AS in the case of the olfactory sense, and following the order of the senses, in that of the visual, and next of the gustatory, we were led to the consideration of the physiological powers enjoyed and dispensed by them, individually and collectively, and as, having the anatomical nervous distribution to each for our guide, we endeavored to assign to each a trinity of power, so does the same physical conformation and arrangement of the organ of hearing suggest the same triune division. We therefore propose to divide the sense of hearing into three distinct departments, and hope to be able to show that, like olfaction, vision and gustation, each separate department, and the nerve-force committed to it, represents an integral portion of auditory power, and that the combination of the powers delegated to the three, makes up the sum of what is known as the sense of hearing. From the earliest record of the anatomy of the internal ear, the suggestions of nature have been followed by the anatomist in describing the organs that constitute the labyrinth of the ear. The name of vestibule was given to the first part of the labyrinth, because it represented a vestibule or hall of entrance to its inner and deeper portions. Then the physical conformation of the semicircular canals pointed to the appropriateness of the name given to them, and the same applies in a still more remarkable degree to the fitness of the name of cochlea given to the third portion of the organ, or more properly, organs of audition. So then we feel sustained by nature herself, in giving to this sense the name of auditory trinity, and led by her suggestion, propose to consider each portion or department as distinct of itself, and as possessing individual and peculiar functional powers to be administered for the purpose of perfecting audition. Let us begin with the vestibule, as the first member of the trinity. We have already described sufficiently its anatomy, so now we will simply recall the most prominent facts of it. 1st. The door or window—"fenestra ovalis," leading into the vestibule, closed by a "membrana tympani," whose outer face looks into the tympanic cavity, and its inner surface into the cavity of the vestibule, and between whose laminæ the terminal ossicle—stapes of the "pons ossicularis," is imbedded, so that every tremulous vibration caused by sonorous undulation from without and impinging upon the external drum, is carried across the bridge, is duly impressed upon the internal drum, and thus conveyed to the sensitive auditory organs within. Next, the occupation of the cavity of the vestibule by the membranous sacs or bags, utricule and saccule—floating in their surrounding perilymph and endolymph. Next, the avenues of communication with the other members of the trinity, the semicircular canals and cochlea, by the scalæ vestibuli cochlœ and the ampullæ. Then the delicate terminal auditory nerve fibrillæ, floating too upon utricle and saccule, so-called "terminal," in the books, but as we have ventured to suggest *initial nerve-fibrillæ* as respects the reception of sonorous impressions from without. Again, those curious little bodies—otoliths, so intimately associated with the fibrillæ at the "macula acustica," the hearing spot, to which association we applied a significant emphasis to be considered by and by, also the cylindrical cells, and the ciliated or hair-like processes—"fila acustica," at the point of entrance of the fibrillæ, the perforation of the inner wall of the vestibule for the passage of auditory filaments at the "fovea hemispherica," and lastly openings of communication—five in number—with the semicircular canals. Now comes the crucial inquiry. *What part of the function or, more properly, as we believe, functions of audition, is played by this first member of the auditory trinity, the vestibule?* The books say "we don't know." Well, suppose we don't! Is that any reason why we shouldn't try to find out? The vestibule is there for some purpose, if not, it wouldn't be there at all. Nature isn't halt nor blind. She works with too direct and definite a purpose to be ignored and snubbed by finite and limited human intelligence and reason. Is it at all consistent with her operations throughout the earth, and in all things that inhabit it, and with her marvellous adaptation of means to end—evidences of which are nowhere, and in none of her creations, more manifest, and to be seen in greater profusion, and more wondrous perfection, than in the construction of the human body? We say, is it consistent that she should form and fashion an instrument whose functional operations make up a sense that bestows upon man one of the most exquisite sources of delight, and one of the keenest joys of which he is susceptible, and that even a portion of that instrument, however small, and seemingly insigificant, should be without its uses, and in our narrow perception, have no "raison d'etre," no claim for existence? In the fullness of our sense of enjoyment of the "divine art" of music, and to which we

have more than once adverted in trying to search out these hidden things of our being, a thankfulness often wells up within us that the Great Power, whose handmaiden nature is, did not forget, when we were projected into life, to give us that one benison which no other power can give, nor take away. We do not mean that modern aping of the custom of ancient Greece and Rome in having music to mingle its dulcet tones with the clatter of the "amphoræ" and the "vitreæ" of the "coena," and which we now see prevailing at some of our modern feasts, and "crack" hotels, to regale the guests withal. We have too much respect for the "divine art" to degrade it upon any such occasion. That may do very well for him whose sensibilities are more keenly alive to the edibles upon his plate than to the harmonies in his ear, not even if they were such as those of the fabled Orpheus that could "move rocks and trees." To such a one, it is easy to commingle an oyster with an oratorio, a cucumber with a cantata, or a syllabub with a symphony. Was it old John Dryden—we can't recall exactly just now—who said:

"Is there a heart that music cannot melt,
Alas! how is that rugged heart forlorn,
Is there, who ne'er the mystic transports felt,
Of solitude and melancholy born?

He needs not woo the Muse, he is her scorn;
The sophist's rope of cobweb he shall twine,
Mope o'er the schoolman's peevish page and mourn
And delve for life in Mammon's dirty mine,
Sneak with the scoundrel fox, and grunt with glutton swine."

Then instead of saying "we don't know," let us rather, with all humility, beg to be able to discover and interpret these mysteries that obscure some of nature's works. The man of thought has only to look abroad to-day over the whole realm and domain of science to see the legionary host of objects of vast interest and importance in the arrest of disease and the general sanitation of the world that are being unfolded by the steady and irresistible progress and advancement in every department of scientific investigation and research. What would our fathers think and say, were they permitted to revisit "the pale glimpses of the moon," as they viewed the transformations wrought by science since they "trod the yielding earth?" Every department of science blossoming and bearing fruit through the fructifying energies of the patient, curious and penetrating processes of busy thought and inquiring speculation. So abundant are they, and so legionary in number, that it were indeed invidious even to name them, without gathering them all in, were such a thing possible, and passing them in review before the eager eye of the scientist and the scholar. Even to take a little pinch, as it were, of the scientific revelations of time, as the snuffer takes his little modicum of nasal comfort between his fingers, would be to people a world with thought and discovery, "brimful and running over." The infinities of space are unfolding their secrets to the laborious, inquisitive and untiring energies of man. There are stellar worlds swimming into the sphere of human ken, under the penetrating eye of the spectroscope and the telescope. There's a microcosm animate with infinitesimal parasitic life, swarming in the field of the microscope, and man is rapidly learning that his corporeal frame and presence are but a habitation and tenement for things that creep and crawl. Bacteriology is a fearful leveller of the overweening vanity of lordly man, and when the mighty master, Shakespeare said of "the sun breeding maggots in a dead dog." it was only another marvellous prescience of the microscopic knowledge that should one day reveal to man his own equally verminous and parasitic tenancy. Let us then be humble and not be content to say, "we don't know," but let us rather work faithfully to still enlarge the ever growing volume of knowledge, advancing and widening as time goes on. We are here reminded of that most exquisite interpretation by the Latin poet of the immortal destiny of the human soul in its celestial home, and which we have borne in memory from college days onward. In likening the soul to a river winding its way to the sea, he said, "Labitur et labetur in omne volubilis aevum." It glides on, and will glide on, through all the endless ages of eternity! But we've been standing at the window "fenestra ovalis," of the vestibule, and looking over the chasm of the tympanic cavity, and we have permitted our musings upon life to lead us too far afield, so let's get back to our legitimate business. There's work to do before us, and if we cannot do it, we'll also have to cry, "Peccavi" and say we don't know. What part then does the first member of the auditory trinity—the vestibule—play in audition? That's the crucial question before us, and a tough one it is too. We must start upon this inquiry just as we did in our investigation of the different members of the olfactory sense, and if our reader remembers, we assigned to each member of that trinity a specific function. To the first, the power to appreciate and appropriate pungent and aromatic odors. Now can we establish, or rather suggest, any analogy here with the first member of the auditory trinity—the vestibule? In the first place, what agency have we to deal with? In the one case, we endeavored to trace the effects of odors upon the olfactory nerve force. But here we have an entirely different agent with which to make an impression upon the auditory nerve force. That agent is sound. What is sound? With the permission of our reader, we shall have to make a little "detour" here, and it shall be as little and as short as possible—and inquire into the physics of sound. Everybody is familiar with the old experiment of putting a bell in a suitable receiver from which the air can be entirely exhausted until the bell is absolutely "in vacuo." Although the stroke upon the bell, and its vibration are readily seen, yet there is no sound audible to the ear. The proof that the air and its oscillations and undulations are the media of the conveyance of sound, is plainly given by the return

of sound growing more and more distinctly audible as the air is gradually admitted into the receiver. The vibrations then of a ponderable medium, such as the atmosphere, produce what is known as sound, and the intensity of sound, and the opposite, are in proportion to the fullness and nearness of atmospheric oscillation and undulations. Hence the intensity of sound is always lessened by distance.

Another fact in relation to the transmission of sound, and its comparative slowness as contrasted with that of light, can be easily seen by watching the interval of time that intervenes between the flash of a distant cannon and the succeeding detonation. Again, sounds differ in intensity, and are therefore described as distant sounds, dull sounds, hollow sounds, resonant sounds, and of still greater intensity, such as piercing, shrieking, strident, crashing, surging, roaring, cracking, and metallic sounds, etc. Then there are musical sounds, characterized as soft, dulcet, melodious, harmonious, soothing, echoing, plaintive, etc. And so we might go on estimating the range of sounds, the number of vibrations in a given time, of different qualities of sounds, as in the method of Helmholz, the pitch of sounds, harmony and discord, different quantities and qualities of tones, using all the vernacular of the physicist and musician. But all that would be foreign to our purpose, and we have already accomplished that purpose by establishing the fact, or simply by repeating the well known fact of the different qualities of sound, and their generation by atmospheric oscillation and undulation. There being then different sounds of innumerable intensities and qualities, and the surrounding atmosphere being almost constantly in a condition of agitation and resonance from the transit through it of sounds of every variety of pitch and quantity and quality, from the purling brook, murmuring its little song on its way through silent woodland and flower-decked meadow to the thunderous roar of mighty Niagara, giant of waters, or the monster of steam and iron, tearing the air and splitting the ear to hasten trade and travel. Then with all these, the necessity is imposed upon nature for the organization of an instrument to receive this endless perturbation of the atmosphere in which we live, an instrument so admirably adapted to the purposes it is required to fulfill, that we should spare no effort, stop at no obstacle that may stand in the way of finding out, if it be possible, all the intricacies of that wondrous mechanism, the human ear, and to go through its devious windings and turnings, halls, galleries, and all its secret places, guided by the sure and steady light of a complete and perfect knowledge. One point more before we proceed to the study of our trinity. We said, a little above, that the surrounding atmosphere was almost constantly in a condition of agitation and resonance from the transit through it of sounds of every variety of pitch, quantity and quality. Now that being so, it would presuppose that the ear took cognizance of every possible sound, or rather, was incessantly afflicted with every possible sound vibrating and reverberating through the air. Were that really so, no man could survive such an infernal pandemoniac din of sonorous misery as is often, indeed, almost constantly occurring in large cities. But, thanks to one of kind nature's protective agencies, we are capable of what may be called voluntary and involuntary or conscious and unconscious audition. We all know of the miller who sleeps calmly in the midst of his mill's incessant grind, indeed, wakes up if it should stop. Then again, too many of us know of the poor wretch afflicted with insomnia, to whom every sound is a pain to every sense, and who vainly woos the coming of the gentle fingers that may press down the weary lids upon the staring eyes, with the delicious balm of "Tired nature's sweet restorer." And so we go through life, each bearing his own burden. What a boon then is unconscious audition. But we must make haste to get away from this subject of involuntary audition, involving as it does, brain and nerve action of so complex and interesting a character, that we should be mightily tempted to let go our trinity for a while, and follow where it might lead. But we are very sure where that would be, and we would soon find ourself deep in brain convolution, cell groups, strata and strands of corona radiata, association fibres, and all the other cerebral wonders, more captivating to us than all the marvels of wonderland told by Scheherezade and that glowed upon the page of the book once so fascinating to childhood's eyes. How are we going to divide these multitudinous sounds, and adapt them to the receptive powers of the three members of the auditory trinity. By analogy, and guided by its physical anatomy, as in the case of the first olfactory member, it seems to be consistent to assign to the vestibule the receptive and *protective* care of the grosser and more impulsive sonorous vibrations reaching it from without. Why? In the first place, the auditory instrument to receive such impulses, must be so constructed as to resist a sonorous force that would otherwise tend to injure and perhaps destroy its integrity, were it not provided with such elements of resistance as had the power to neutralize and deprive the force of its destructive qualities. What elements of resistance are there in the vestibule, and how do they operate in receiving forcible sonorous impressions, and deflecting their hurtful tendencies from the delicate and vulnerable auditory nerve-fibrillæ in this portion of the auditory mechanism? Let us accompany a sound of a given intensity from without, and follow the various steps of its progress onward to the internal ear. The external auricular surfaces have caught it, and passed it through the external opening—"meatus auditorius externus"—and along its passage to a closed door—"membrana tympani externa," or outer drum. At the moment of sonorous impaction by the sound upon the outer drum, three physiological phenomena occur. What are they?

1st. The membrane of the drum is instantly put into a certain condition of tension or relaxation, according to the intensity of the sonorous impact. 2nd. The contraction or relaxation of the two muscles—tensor and laxator tympani, or more properly speaking, the tension or relaxation of the drum by the action of one or the other of these two muscles controlling its movements. 3rd. The stimulation of these muscular forces by ganglionic or sympathetic nerve force—otic ganglion—one of the initial ganglia of the great sympathetic chain. So then by reversing the order of the phenomena resulting from sonorous impaction, we have, 1st. Sympathetic nerve force. 2nd. Muscular contraction or relaxation, according to sonorous intensity. 3rd. Tension or relaxation of the membrana tympani. Now the sound is permitted to pass to the inner or tympanic surface of the outer drum. What does it meet there? It finds itself on the first parapet of a bridge—pons ossicularis—which at once begins to vibrate and oscillate in response to its sonorous vibrations and undulations until the whole bony chain becomes agitated and tremulous, and conveys its agitation to the last bone of its structure, stapes. We remember that the stapes is imbedded in a membrane—"membrana tympani interna"—and that that membrane closes a window—"fenestra ovalis"—which looks into a chamber, or hall, the vestibule of the labyrinth of the internal ear. The stapes is now tapping at the window and announcing the arrival from without. Not only so, but a little muscle, the stapedius, attached to it, has its part to play too, in producing contraction or relaxation, under supervision of a nerve force of the membrane of the fenestra and adapting it to the reception of the sonorous impulse and conveying it onward. So then, by a direct route, a sound from without has found its way into the home of audition, to be disposed of as we shall see presently. But, before we follow it to its destination, suppose we retrace our steps back across the bridge once more. There are some curious and interesting specimens of nervous matter, under the bridge and around and about it. Here a feeling comes over us such as would be experienced by a lover of and curious searcher after, new forms and new specimens of insect life, or a wanderer by the shore grubbing for quaint and unknown shells, and moulding a history of each, and weaving a record of the adaptation of the one to the necessities of its brief life, and the instinctive industry of the other, by which its little house is built up around it from the secretions of its own body, to cover and protect it against invasion from without; or again, and far beyond the quest of the wanderer by land and shore, the world of thought and speculative wonder that fills the mind of the geologist and palæontologist, whose steps lead him into "the bowels of the earth," where he may turn the leaves of geologic strata, and read the story that has been going on, so far back in prehistoric terrestrial life, that, as described by Tyndall "countess æons"—*αἰον*—eternity, would fitly name the cycles of time that attended its evolution and development. In the debris of palæozoic life, deposited by those revolving cycles of time, is the dust of what once walked the earth in forms of might and power that now challenge our belief. But though extinct, man's restless and inquisitive mind has unearthed them, and they stand revealed, as monuments of successive periods of the lapse of time, when the earth was young. *Then*, the "*ἀνθρωπος*," man was slowly incubating in the thought of the great "I Am." The time was not yet ripe for his projection upon a world that was still in gestation with the "environments" suited to his terrestrial life. But the time came, and man, and his physical, mental, and moral organization, have ever since been the subject and the object of investigation and inquiry by his fellow man, and still the record is unfinished and incomplete, still, "much remains unsung." And so we again take up the story and try to add a little more to the record upon the same endless theme, man's physical, mental and moral organization. We return to that portion of his physical nature that has been engaging so much of our study and thought, the mysterious nervous matter that is so large an element in it, and of which so little, comparatively, is known. We left some curious specimens of this nervous matter that were under and around and about the pons ossicularis. We've seen them before, and we recollect that they were fully worthy of our inspection and investigation. Suppose we recall a few of the impressions made by that investigation. Right under our feet, as we stand between the first and second parapets of the bridge, we see again a white cord, which gave us such an amount of food for thoughts and speculation when we considered gustatory nervous matter. The chorda tympani was to us, and we hope to our reader also, a source of most interesting inquiry as to its relations to the tongue and the physiological function of the sense of taste. We recollect that it was subjected to the vibratory oscillations of the pons ossicularis by reason of its close connection with two of its bones, mallens and incus, and that we called attention to this connection as a link between the senses of taste and hearing. We here repeat the fact of that same connection, and recall to our reader's mind the various pleasures and enjoyments eminating from it. We reviewed the peculiarities of the birthright of the chorda, its mixed paternity, mongrel and noble, its associations with other nerves and finally its nature and the dispensation of its specific nerve force to the tongue. The reader need only be reminded of the various nerves, coming from different sources, and constituting the tympanic plexus, and how by their associations, so many sympathies are established with remote portions of the organism, so that, to come back to our subject of present consideration, a sound penetrating the organs of audition, will make its influence felt far and wide, and that that influence, and its results can be explained in no other way than by the maintenance, through these nervous intercommunications and

inter associations, of a nervous unity, binding all portions of the organism in one indissoluble bond of nervous continuity.

MEDICAL JURISPRUDENCE.

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IDENTIFICATION OF HAIR.

THIS frequently becomes an important question on trials for homicide. The opinions of microscopists would certainly be received as to whether the hair in question was human or otherwise. And a witness possessing no special qualifications has been allowed to express such opinions. Commonwealth *vs.* Dorsey, 103 Mass. 412.

About forty years ago, a trial occurred at Norwich, England, the circumstances of which are detailed in *Richardson's Medical Microscopy*, as follows: "A female child, nine years old, was found lying on the ground in a small plantation, quite dead, with a large and deep gash in the throat. Suspicion fell upon the mother of the murdered girl, who, upon being taken into custody, behaved with the utmost coolness, and admitted having taken her child to the plantation where the body was found, whence the child was lost in quest of flowers. Upon being searched, there was found in possession of the woman, a large and sharp knife, which was at once subjected to a minute and careful examination. Nothing, however, was found upon it, with the exception of a few hairs adhering to the handle, so exceedingly small as scarcely to be visible. The examination being conducted in the presence of the prisoner and the officer remarking, 'Here is a piece of fur or hair on the handle of your knife,' the woman immediately replied, 'Yes, I dare say there is, and very likely some stains of blood, for as I came home I found a rabbit caught in a snare, and I cut its throat with a knife.' The knife was sent to London, and, with the particles of hair, subjected to a microscopic examination. No trace of blood could at first be detected upon the weapon, which appeared to have been washed; but upon separating the horn handle from its iron lining it was found that between the two a fluid had penetrated, which turned out to be blood—certainly not the blood of a rabbit, but bearing every resemblance to that of the human body. The hair was then submitted to examination. Without knowing anything of the facts of the case, the microscopist immediately declared the hair to be the hair of a *squirrel*. Now, round the neck of the child at the time of the murder there was a tippet or 'victorine,' over which the knife, by whomever held, must have glided, and this victorine was of *squirrel's fur*.

"This strong circumstantial evidence of the guilt of the prisoner was deemed by the jury sufficient for a conviction, and whilst awaiting execution, the wretched woman fully confessed her crime."

Henry Wade Rogers, A. M. LL. D., President of the North Western University, in a work on Expert Testimony, (1891,) says: "In the famous Cronin case, recently tried at Chicago, expert testimony on the subject of hair was received, some of the experts affirming and others denying the possibility of determining that certain hair was human hair. If the microscopists of this country and England have given much attention to the question whether it is possible to distinguish human hair from *all* other forms of hair, they have not made public, so far as the writer knows, the result of their investigation."

The following abstract of the testimony of the experts in the Cronin case, may be interesting.

Henry L. Tolman testified that he had had a large amount of experience with the microscope in determining the character of hair. That he had collected and examined the hairs of men, women and children, as well as the leading kinds of hairs of animals from the different sections of the world, so far as he could get them, for the last six or seven years. That human hair could be distinguished by a scientific eye with the aid of a microscope from the hair of other animals. That human hair standing by itself could be distinguished only by an expert eye through the aid of the microscope when it was of any length. That if it was a half inch or spike shape it could be told by the eye, but when it was two or three inches long it required the aid of the microscope. That the hairs he examined in the Cronin case were human hairs.

Dr. William T. Belfield, who had studied the use of the microscope in Vienna, in London and Chicago, and had been a lecturer in Rush Medical College, testified that science could determine whether hair was or was not human hair, and that the hair he had examined iu this case was all human hair. The characteristics of hair as shown by the microscope were their diameters—the markings on the surface, the relation between the central canal, or medulla, as it is termed, to the rest of the hair, the distribution of colored spots through the structure of the hair. That human hairs and those of many other animals were covered with scales on the outside, resembling in a general way the scales of fishes, overlapped like the shingles on a roof. That those scales varied in size, and also in the distance between consecutive overlaps.

Professor Marshall D. Ewell, of the North Western University, and who was a Fellow of the Royal Microscopical Society of London, England, and a member of the Illinois State Microscopical Society, testified that in the present state of science there was not, to his knowledge, any means by which human hair could be certainly distinguished from all other hair, and that there was no way by which it could be scientifically ascertained with definiteness that two given specimens of hair came from the same head. "Scaly

epithelium," he said, "is found in all sorts of animals and reptiles. Every time you comb your head you comb out epithilium; every time you rub your face you rub off scaly epithilium. Every time you expectorate you expectorate epithilum, every time you dust your clothes you shake out epithilium. In my experience it is found everyhere. I have found it in carpet sweepings or sweepings of the floor in large quantities—not large quantities, but in considerable numbers. . . . I don't know of any way, and I can't find any mentioned in the books, whereby it can be scientifically determined whether or not this scaly epithilium is from the human body. The presence of scaly epithilium in a given specimen of blood taken from the floor of a dwelling would not be of any scientific value in determining whether the blood was human blood or not." He also testified that there were certain dog's hairs which could not be distinguished from the human hair when examined under the microscope. "Take a yellow or brown dog," he said, "and you will find quite numerous hairs that under a microscope present identically the same appearance. We determine the differences in hairs by examining the image which is projected to the eye by the microscope. The principal characteristics to distinguish hairs under the microscope are the cortex, configuration and scales on the outside of the central pith, which is called the medulla. In a great deal of the human hair you won't find any medulla. I supposed they had, and you will find the medulla in some of them, but in the most of them that I have examined I did not find them, and therefore you have simply the general pigmentation and configuration of the edges, and these are so nearly alike all others that you cannot tell them apart. As a rule you will find medulla in the hairs of these other animals, but there are enough of them that do not have any medulla to confuse one. A single hair from a horse may, under a microscope, be mistaken for a human hair. . . . There are a good many hairs on a dog that cannot be distinguished from human hairs."

Professor Harold Moyer, of Rush Medical College, Chicago, and who had studied microscopy in Arnold's laboratory in Heidelberg, testified that in the present state of science there was no means by which human hair could be certainly distinguished from all other hair, and none by which it eould be scientifically ascertained with definiteness that two given specimens of hair came from the same head. That there was a variation in the diameter of individual hairs taken from a given individual, and that he thought that the variation was as great in the hair of a given individual as the variations between the hairs taken from the heads of different individuals. That under certain circumstances the hair of some of the lower animals was liable to be confounded with and taken for human hair, particularly if there were only a few hairs. That the microscope was of no service in determining the color of the hair. That it was impossible to distinguish fuzz or lanugo from all other substances. That there was no distinct structure to lanugo hairs; that they looked very much like a thread of silk, and were not to be distinguished in some instances from threads of silk in any of their optical appearances. That he did not think the fact that a dozen of these little fibres in a specimen of blood derived from the floor of a dwelling would furnish any evidence at all that the fibres themselves were lanugo. That the fibres might have been there before the blood was placed there; that such fibres are found upon furniture and tables and chairs. That the substance called scaly epithilium was not derived alone from the human body, but that it could come from the body of other animals. He also said, "I do not wish to be understood as stating that there are no differences between the hair of animals and the hair of man; that they were identical. What I meant was that there are certain hairs found upon certain animals which it is difficult or impossible to distinguish from the human hair. The medullary sheath varies in size in the human hair. I should think that the diameter of the medullary sheath was about one-eighth or one-tenth of the whole diameter of the hair; I don't know as to a horse's hair, nor as to the hair of an ox; I remember how it is in dog's hair. Some dog's hair resembles very closely in the size and medullary sheath all the characteristics of the hmman hair. I do not know positively that the hair of any other animal except a dog would be confused with the hair of a man. . . . I think by the aid of a microscope you might, to a great extent, exclude all the hairs of other animals except the dog. I want to say, though, that my examination of hair does not include a great many animals, or a very great number of observations."

Dr. Lester Curtis, at one time President of the State Microscopical Society of Illinois, and lecturer in the Chicago Medical College, and who had studied microscopy in Germany, and had studied with the microscope since 1857, and had lectured upon the subject of hair, testified that he did not think that in the present state of science there were any means by which human hair could be certainly distinguished from all other hairs, or that two given specimens of hair came from the same head; that the variations of the diameters of the hairs of a given individual were very great; that there were noticeable differences in the structure of the hair of different persons, and that the hair of some lower animals was liable to be confounded with and taken for human hair; that the microscope was of no value in an examination as to the color of the hair, in fact he thought it would be a disadvantage rather than an advantage; that most hair that has much color was opaque, and only could be seen from the surface, and the reflection of light from the surface of the hair produced a dazzling effect that was confusing, so that the color and some of the grosser peculiarities could be determined quite as accurately with the naked eye, if not more so, than with the microscope; that lanugo could not be certainly

distinguished in a scientific way from all other substances, and that it appeared structureless; that all hair is built on the same general plan. In human hair the medulla is usually present in the larger hairs, but may be absent in the smaller ones. As the general rule the medulla is more plainly marked in the lower animals than it is in the human subject. Some dogs' hair shows the medulla very plainly, some do not. A dog's hair has a medulla somewhat more plainly marked than it is in the human hair, and the epithilium on the outside is a little more sharply defined. This appears only by means of the microscope. A horse's hair also has a medulla more plainly marked than the human hair, but I have seen a good many specimens of horse's hair that had no medulla at all.

TRIAL FOR CRIME COMMITTED IN ANOTHER STATE.

The question of territorial jurisdiction was much argued, at the time of President Garfield's death in the State of New Jersey, from a shot fired into his body in the District of Columbia.

Two comparatively recent cases, one in West Viginia, the other in North Carolina, have provoked discussion of the subject anew. The Supreme Court of Appeals of West Virginia, in Ex Parte McNeeley, held that a statute of that State was not unconstitutional or invalid, which provides that "if a person be stricken or poisoned outside of this State, and die by reason thereof within this State, the offender shall be guilty, and may be prosecuted and punished, as if the mortal stroke had been given, or poison administered in the County in which the person so stricken or poisoned may so die."

On the other hand, the Supreme Court of North Carolina, in State *vs.* Cutshall, held that a section of the North Carolina Code rendering a person who commits bigamy, "whether the second marriage shall have taken place in the State of North Carolina or elsewhere," guilty of a felony, and providing that "every such offense may be punished in the County where the offender shall be apprehended as if actually committed there," is repugnant to the section of the Constitution securing trial by jury, which is construed to be a jury of the vicinage; and also to the constitutional provision against depriving a person of his life, liberty or property except by the law of the land.

In Cooley's Constitutional Limitations, it is said that "due process of law in each particular case means such an exertion of the powers of the government, as the settled maxims of the law permit and sanction, and under such safeguards for the protection of individual rights as these maxims prescribe for the class of cases to which the one in question belongs."

The Court, in the Neely case, advanced the following arguments, which, though finally ignored in the conclusions reached, are well nigh conclusive against considering as due process of law, a trial in a State other than that in which the act of the accused was performed:

"I must," says the learned Judge, "for myself, say that I have not been able to relieve myself from serious doubt as to the validity of the second clause of Section 6, c. 144, Code, subjecting to punishment here, a person striking a blow outside the State, where the consequent death occurs within this State, because I regard the crime as committed where the mortal wound is inflicted. Under this statute, a man dealing a blow in California or Australia, if the stricken person comes here and dies, may be tried here, far away from the scene of the tragedy where his character is known; far away from friends to aid in his defense; far away from the witnesses of the act, with no power in this State to compel the attendance of these witnesses. The law of California or Australia may punish the act under the same facts in a certain way; ours, with more severity. Does the prisoner know of our law when he strikes the blow? Is he bound to know our law? He is not. Neither in fact does he know or in theory is he bound to know our laws when he delivers the blow. He cannot tell into which one of the many countries of earth the victim may wander, within the year and day before death, and he cannot study the laws of all the states." A very satisfactory disposition of the question as to the *locus* of the crime is that of Brewer, J. in State *vs.* Brown (16 Kan 475), to the effect that as the only act the defendant does toward the death of the victim, is giving the blow, the place where it is struck is the only place where he commits the crime; that the subsequent wanderings of the wounded man, uninfluenced by defendant, do not change the place of the offense; that death simply determines the character of the crime in the place of its commission, and refers back to the act and gives it quality.

The American Law Review, in commenting upon the Neely case, (W. Va.) says:

"The West Virginia decision leads to another absurdity, which is that the same person may be amenable for the same homicide in two different territorial jurisdictions—in this case in Kentucky and also in West Virginia. That he is triable in the former State, is beyond all question. Suppose then, that he should be tried in Kentucky, and should be found guilty of murder in the second degree, and be sentenced to a term of inprisonment, and after his release, stray into the State of West Virginia, in which State the deceased happened to breathe his last. As murder never outlaws, he might be indicted in West Virginia, and tried and punished a second time, even capitally."

By using your tooth-brush vigorously with diluted camphor, the most delicate or suspicious olfactory nerve cannot detect the odor of what you have put under your vest, says the *American Homeopathist*. And a drop or two of ammonia in half a pint of water gulped down at one dose will restore sobriety to the most drunken brute. But have a care not to drink again that evening or you will have to anchor down your umbilicus and sigmoid flexure lest they try to come up via the eosophagus.

"FAITH HEALING, CHRISTIAN SCIENCE AND KINDRED PHENOMENA."*

BY D. A. GORTON, M.D., BROOKLYN.

THIS handsome duodecimo volume of Dr. Buckley has been on my library table awaiting attention many weeks. Often have I taken it up for review, and as often have I put it down with a feeling, almost audible—"Not yet."

There is a great deal in the volume, facts and observations from the first page to the last, and conclusions drawn from them all through. The Simon-pure scientist—that is to say, one who believes only what is susceptible of proof by data that appeals to the five senses only—will take much pleasure in it. It is written from the standpoint of a skeptic, though the writer is a professed Christian clergyman in good and acceptable repute in the sect to which he belongs, or with which he affiliates. If one was not so familiar with the phenomena of human inconsistency, the general tenor of this book would surprise one, coming as it does from one who it is natural to suppose is a believer in phenomena that transcends the natural—that is to say, phenomena that are incredulous, marvelous and supernatural. With one exception, the writer of this volume is skeptical of the occult—that exception being the spiritual phenomena of the Old and New Testaments. His skepticism is of the rankest sort, as rank as Voltaire's or Paine's, and a thousand times more rank than John Tyndal's or Thomas Huxley's. His skepticism is so rank, indeed, that one wonders how he can appreciate the fine spirituality of Jesus, or have any genuine sympathy with the doctrines of the mystics of the mediæval period, whose lives were patterned after His, and who preserved inviolate the faith of their divine Master.

Dr. Buckley would explain all ultra-spiritualistic phenomena—that is, faith-cures, cures by mental influence (objective), prophecy, presentiments, trance, mind-reading, clarivoyance, etc., except such as are recorded in the Bible—on rational principles; and where the facts do not conform to that standard, or do not accord with such principles, he boldly denies them. He does not seem to be able to rise to the heights of comprehending that there may be possibilities in mind—the higher grades of mind—the laws and principles of which he knows nothing; nor that science has well-defined limitations when applied to the discovery and interpretation of final causes; nor that the marvelous things that Jesus and His Apostles did were done in strict accord with the laws of *their* being—all of which may be possible to any soul who has risen, or may rise, to the heights of the divine sphere in which they lived and wrought. Jesus Himself declared that His followers and disciples should do even greater deeds than those that signalized His divine career—a declaration which implies that they should rise to the level of the life which He lived, which is the ideal of human life to which it is incumbent on us to aspire. The author insists that there is a radical difference between the cures effected by Jesus and His Apostles and those effected by modern faith and mind curists. This position is hardly tenable, for Jesus Himself declared that the agent of the cures which he wrought was faith. And what warrant have we to assume that faith, as an element of human nature, is not the same to-day as it was in Biblical days? Yet, while admitting the facts of cure by faith, the author thinks that "faith-cure, technically so-called, as now held by many Protestants, is a pitiable superstition, dangerous in its final effects."—(p. 45.) He also denies the principle involved in so-called mental healing, the influence for weal or woe of one mind over or upon another, and allies the effects produced by so-called mental treatment with those of faith and expectancy. "Perhaps the most potent cause in awakening faith [in the treatment] is the sublime audacity displayed by the practitioner who dares to dispense with drugs, manipulation, hygiene, prayer and religious ceremony. That spectacle would," he continues, "infallibly produce either such opposition or contempt as would result in the termination of the experiment, or faith."—(p. 281.)

Of the existence of presentiments and apparitions Dr. Buckley is equally skeptical. Not being able to account for them, he essays to argue them away. "What I design is to show," he says, "that when the evidence is rigorously though fairly examined, the Scotch verdict, 'Not proven,' must be rendered concerning the reality of apparitions; and that the presumptions of their natural origin are so strong as to leave little doubt in minds not intoxicated by a love of the marvelous, or who do not desire to find by sensuous evidence an 'Elysian road which will conduct man undoubtingly to such beliefs as his heart most craves.'"—(p. 186.) Nevertheless, the author believes that Jesus showed Himself on divers occasions, after His crucifixion, to His relatives and friends, and that an angel appeared at the sepulchre where He had been entombed and talked with Mary, who sought information as to the whereabouts of her Lord's body. This is grossly inconsistent.

It must be admitted by every sincere skeptic who thinks and feels on this subject at all, that there is more in it than is dreamed of in his philosophy. The most advanced people of this or any previous age have believed in these things—that is, in presentiments, presages and apparitions. Plato believed in them; so did Socrates. According to Plato, Socrates lived in intimate intercourse with the unseen world and was guided and instructed by invisible and shadowless beings. The excellent and noble Plutarch indulged in no doubt on this subject, nor did Plotinus, Porphyry, Gorgias, Marcus Aurelius and a host of others. The same may be said of the

*By Rev. J. M. Buckley, LL.D., New York: Century Company.

great and ambitious Cæsar. When men whose mental calibre is assuredly greater than ours—greater even than that of the Rev. Dr. Buckley—believe in the reality of mental and spiritual powers and existencies separated from the body, one of average capabilities may well pause and reflect before pronouncing an adverse verdict on these interesting subjects.

Apropos of an allied subject, an experience of the writer may not be out of place here. A patient of his had, some time previously, met with an accident which led to a deep-seated abcess in the pelvic region. An operation had been performed and drainage-tubes—which did not drain—inserted. Blood poison ensued, and with it a long-suffering sickness. The torture of the poor fellow ultimately became so grievious that nothing but massive doses of morphia gave any relief. For weeks he lay hovering between life and death. At length the crisis of death came. It was on an early Spring morning. In my last sleep, between six and seven A. M., I dreamed of being with this suffering patient. I saw him sitting on the edge of his bed, held there by his mother, crying in great agony. He could not lie down, nor could he sit up or stand. He had lost his eyesight and was cold and tremulous. The massive doses of morphia had ceased to soothe him. It was absolutely inoperative. In this extremity the mother appealed to me: "Can you not do something for him?" she said, entreatingly. "Yes," I replied, "but he will not survive it." So saying, I took from my pocket a vial of chloroform, and, wetting a napkin with it, applied it to his nostrils. In a moment the patient became calm, suffered himself to be laid on the bed, and, after a few more inhalations, was no more. I at once awoke with a strong feeling upon me that I was needed at the bedside of my patient, half a mile away. Quickly dressing myself, I hastily went to his house, to the surprise of his family, who had just sent a messenger for me. To my own surprise, I found the patient and all the circumstances in a condition exactly as I had seen him and them in my dream of a few minutes before! Strange to say, I had hastily seized a vial of chloroform which I had in my office, and put it in my pocket as I left the office, thinking I might have use for it—a most unusual thing for me to do. As I entered the room the mother put the same identical question to me as to the relief of her son that she had done in my dream, and I made the same identical answer. The chloroform was administered in the manner as I had dreamed, and the result was the same. Every circumstance of my dream was faithfully reproduced in every particular, and the death-bed scene re-enacted! There is nothing supernatural in this strange experience, of course, but it suggests the possibility of a spiritual telegraphy the laws of which are yet unknown.

Let no one misunderstand the drift of my criticism of Dr. Buckley's book. I freely admit the justice of his characterization of many of those who trade on human credulity under the names of Mesmerists, clarivoyants, faith-curists and mental scientists, ignorant pretenders to knowledge which they do not possess. But there are exceptions to be made. Be that as it may—for it is not my purpose to defend those classes—Dr. Buckley confounds the professors and practitioners of those sects with the principles which they advocate, and condemns both together. He would explain all occult phenomena on well-known principles of physiology and therapeutics, and deny the truth of such as cannot thus be explained. Herein lies the fault of his otherwise excellent book. He should have approached the subject with more modesty and less pretention. It is idle for anyone, however vast his research, at this early period of mental development, to pretend to possess complete knowledge of the causes of mental phenomena. There may not be anything in them that could properly be called supernatural, since nature comprises the Cosmus; but there are those among us who feel that there are depths within the human soul which have not yet been sounded, and which it may take all eternity to fathom—and yet remain unfathomed.

These modern sophists, these hare-brain promoters of faith and mental methods in treating the sick have done and are doing excellent service to humanity by showing the profession a better way of treating disease than that of deluging the economy with noisome drugs. While their philosophy is, for the most part, vapid and ill-founded, their method of wooing the gentle *vis medicatrix naturæ* is a beautiful conception and overflowing with wisdom. Every thoughtful physician knows that drugs, in big doses or little, while often beneficial, do not and cannot cure malady. This wonderful process is always done by nature, or the Unconscious, whatever are the aids—or hindrances—which art employs. The author of the volume under notice recognizes this great truth and admits the salutary influence which faith-healing and Christian science have exerted on the profession in this direction, by their habit of *patiently waiting for nature to do her perfect work* and to perform the marvel of cure.

"The relation of the mind-cure movement to ordinary medical practice," he says, "is important. It emphasizes what the most philosophical physicians of all schools have always deemed of the first importance, though many have neglected it. It teaches that medicine is but occasionally necessary. It hastens the time when patients of discrimination will rather pay more for advice how to live, and for frank declarations that they do not need medicine, than for drugs. It promotes general reliance upon those processes which go on equally in health and disease." (p. 289.) After making this just concession, the author declares that "these etherial practitioners have no new force to offer; there is no casual connection between their cures and

their theories."—*(Ibid.)* Now, both of these propositions are true. They have no *new* force to offer, and their theories *are* mostly vagaries. But have they not applied and emphasized an old force? Do they not speak truly in declaring the existence of a mental force, objective to the patient, that may be brought into operation in the treatment of his maladies? Dr. Buckley thinks not, and in this respect he is in accord with the consensus of the opinion of the profession. Nevertheless, it is a denial wholly gratuitous. He does not know that there is not, and his faith, or his professed faith, should have admonished him to affirm rather than to deny in respect of it, for when the woman was instantaneously cured of her infirmity, who in blind unreasoning faith barely touched the hem of His garment, Jesus *felt the curative virtue go out of Him.* The experience of all mesmerists accords perfectly with that of the Divine healer on the occasion referred to.

INDIAN CHOLERA.

BY HENRY N. AVERY, A. M., M. D.,
MINNEAPOLIS, MINN.

Part II.

DR. BIGGS, in the *American Journal of the Medical Sciences* for January, 1893, reports the results of nine post-mortem cases during the late cholera epidemic in New York City.

APPEARANCES AND ANATOMICAL LESIONS FOUND POST-MORTEM.

"Practically the same appearances and lesions were found after death in all the cases, nine in number, and these were so striking and characteristic, and are so unusual in autopsies in New York, that in the latter cases they seemed to the writer, in themselves to be almost sufficient to justify a diagnosis of Asiatic cholera. The eyes and cheeks were deeply sunken, the face drawn, the extremities of the nose, ears, fingers, and toes shrunken and often cyanosed; the arms and legs were usually half-flexed, the hands clinched, and the toes drawn downward. Rigor mortis was very marked. On opening the abdomen the intestines presented a peculiar rosy blush, especially marked in the coils of the ileum. The small intestine was distended with slightly pink-colored contents resembling in appearance and consistence a thin broth. The mucous membrane of the stomach and of the small and large intestine was rather pale, and seemed but little changed excepting for the unusual prominence of the Peyer's patches and the solitary follicles in the ileum. The blood was completely fluid, or at most contained only a few soft, dark-colored clots, and seemed unusually thick and dark-colored. The lungs and all the parenchymatous organs appeared congested, and there seemed to be cloudy swelling in the heart muscle, liver, and kidneys. The spleen was rather smaller than normal, and the bladder empty. The brain and its meninges appeared congested. In a few cases the intestinal contents were not large in amount, but in all cases there was a striking absence in the intestinal contents of any biliary coloring matter or anything having the appearance of ordinary feces.

"The appearance of the exterior of the body, the muscular contractions and cyanosis of the extremities, the rosy hue of the intestinal coils, the character and color of the intestinal contents, the appearance of the blood, and the absence of any anatomical lesions sufficient to cause death, form together a group of phenomena which seem almost characteristic of Asiatic cholera. However, it is probably impossible to say with certainty that cases presenting these appearances and anatomical findings are certainly Asiatic cholera, for, rarely, cases of so-called cholera morbus in the adult may present almost identical appearances and lesions.

"It would hardly seem necessary to say anything regarding the importance of biological examinations to determine the cause of death in Asiatic cholera, were it not for some unfavorable criticisms that were made in regard to such examinations at the time, or that have been made since the outbreak. It would seem as if an argument to establish the necessity of such examinations in the beginning of an outbreak of Asiatic cholera was on a par with an argument to show the importance of the examination of the sputum in assisting the diagnosis of doubtful cases of pulmonary tuberculosis. So far as I am aware, in the absence of an epidemic or proof of infection, all physicians of experience are agreed that it is impossible to make, with certainty, a clinical diagnosis of Asiatic cholera, and it is also admitted that the first cases in an epidemic are always doubtful cases. I greatly question whether credence would or should be given to the statement of any physician or any number of physicians in asserting, upon the clinical history alone, that any given isolated case, occurring in the absence of any proof of infection of epidemic cholera, was a case of that disease.

"The testimony of all the German observers in the recent epidemic in Germany has been that in many cases epidemic cholera occurs in such a mild form that no suspicion as to the nature of the disease would be aroused were it not for the biological examination; and, on the other hand, cases of cholera nostras are sometimes seen which present a perfectly typical clinical picture of epidemic cholera. Experience in these cases in New York, and in the cases which occurred at the quarantine station in 1887, convinces the writer of the enormous practical value of biological examinations for the diagnosis of Asiatic cholera, and it is certain that such examinations made by Dr. Prudden and the writer were alone the cause of the exclusion of epidemic cholera from New York in 1887, and that they were of the greatest importance in assisting the work of the Health Department in the outbreak this year.

"In reviewing the history of this outbreak in

New York, one is impressed by several interesting features:

"First. In no single instance, after the most careful and conscientious inquiry and investigation, was it possible to find any satisfactory way of accounting for the infection.

"Second. The cases occurred in widely separated parts of the city, and in no instance was there the slightest suspicion of association.

"Third. After the cases were brought to the attention of the Health Department, in no instance did a secondary case occur.

"Fourth. There was a striking association in the occupation of the persons affected with the food trades, and especially animal foods.

"Fifth. Although some twenty-six suspicious cases were examined, in every one in which the cholera spirillum was found, eight in number, death occurred, while in only one of the other cases, in which the cholera spirillum was not found, did death follow. In two instances, however, where recovery took place—that is, the fifth and sixth cases—although biological examinations were not made, the associations with cases which were proven to be cholera Asiatica justified the assumption that these were of the same nature."

Dr. Dunham in the same journal reports his results in the same cases.

"The method of examination necessarily differed according to the nature of the material received for examination. Where this material was fluid it was examined directly under the microscope, without previous staining, and again after drying and dyeing with aniline colors.

"These direct microscopical examinations of the intestinal contents proved very unsatisfactory. In only one case did cover-glass preparations of the dejecta show large numbers of comma bacilli agreeing in form and size with the cholera bacillus. This case was where dejecta had been collected from a patient sometime before death and examined within a very few hours. Plate cultures from the same material showed that the cholera bacillus made up 98 per cent. of those bacteria present which were capable of developing in ordinary nutrient gelatin at the temperature of the room.

"In all the other cases microscopical examination revealed an abundance of columnar epithelium from the intestinal mucous membrane; numerous straight, thick bacilli; a considerable amount of granular detritus; but at most only a few curved bacilli, which could not warrant even a presumption for or against the probability of a diagnosis of epidemic cholera. Plate cultures from this same material revealed the presence of the cholera bacillus in proportions varying from about 20 per cent. to as high as 90 per cent. of the total bacteria developing upon the plates. This observation shows the importance of not relying upon a simple microscopical examination of dejecta or intestinal contents. An analogy is presented by the untypical forms found in old bouillon and gelatin cultures of the cholera bacillus.

"The cultures made for the purpose of identifying the cholera bacillus were invariably prepared by inoculation from typical colonies upon plate cultures. These plate cultures were made, where possible, directly from the fresh dejecta, or from material taken from the intestine or stomach at the autopsy. Where this was impossible, the material sent for examination (soiled clothing, etc.) was introduced into bouillon in test-tubes, and the latter placed in an incubator at 36° C. (96.8° F.) for six, eight, or twelve hours, until the bouillon was cloudy. From these impure bouillon cultures the initial plate cultures were then made, and the colonies developing on these plates used to inoculate other media for the purpose of identification.

"In order not to miss the cholera bacillus, should it be present in small proportion, even where dejecta or intestinal contents were received, this preliminary bouillon cultivation was made in the hope that in this way material for plate cultures, more favorable than the original material, might be obtained. This safeguard against possible failure to detect the cholera bacillus in the original material proved unnecessary in all the cases examined. The first set of plates from the original dejecta always yielded positive results, there being no difficulty in detecting the colonies of cholera bacilli. A previous cultivation in bouillon at the body temperature appeared, however, to increase somewhat the relative abundance of the cholera colonies upon the plates. In the cases where the material to be examined was very small in amount and dried upon clothing, a preliminary cultivation in bouillon proved very satisfactory.

"The bacteria associated with the cholera bacillus were chiefly bacterium coli commune or proteus vulgaris, so that there was no difficulty in distinguishing those presumably cholera from those which were certainly not cholera. But the appearances of the cholera colony varied so much on plates which developed at different temperatures, and with the size of the diaphragm used when they were examined under the microscope, that it seems excusable to dwell a little upon these variations, since the recognition of the cholera colony is the first step in the bacteriological diagnosis of a case.

"Not only do the appearances of cultures differ where the development has taken place under different conditions, but the appearances of the individual bacilli vary somewhat according to the medium and the temperature. Under some circumstances the bacilli appear short and but slightly curved. In other cases they are longer, appear more slender, and show a much more marked curvature."

Dr. G. Seeligman, in the *Medical Record* for January, 21, 1893, says: "the large number of remedies which have been suggested in this disease, shows that we have not yet accomplished much in its treatment."

The same journal gives an extract from the *Indian Medical Record*, with this terrible record.

In fourteen years, from 1877 to 1890, it declares that 1,000,826 persons have died in Bengal from cholera alone.

Koch's theory is doubted by Pettenkofer and Emmerich—who claim to find the comma bacillus in most cases of cholera, but the question arises, is the comma bacillus the cause? Pettenkofer says his old time views have not materially changed in relation to cholera.

In reviewing the subject of medicine at the present day, we may all exclaim, "Where are we at?" One day our good brothers of the old school are giving to the world their laboratory diagnosis and treatment, while others are giving their clinical experiences in the same disease, one contradicting the other. The young man returning from Germany to-day tells you the laboratory diagnosis is the only true method of arriving at nature's sore afflictions, entirely ignoring clinical experience and bedside indications. Shall we first submit our supposed cases to the bacteriologist, to determine whether we have a case of true cholera or cholera nostras, or shall we study the symptoms and go to work?

Professor Rosenbach of Breslau says: "that the practitioner has had to take a 'back seat,' while the test tube, the microscopical slide and other instruments of precision, often wielded by mere theorists, are usurping his powers and functions." *Merck's Bulletin*, edited by Prof. Porter of the Post Graduate school, says: "Remedial agents should be used only *when there are physiological indications* for their administration, and they should *never be given* simply *by the name* of the remedy or by the name of a disease?

Dr. Geo. F. Shrady says in the *Medical Record* of New York, "perhaps we have all been, more or less on the wrong track, but it is not too late to turn back."

While the pathologists are so much at loggerheads, now is the time for practical physicians to apply themselves to clinical teachings, the results of which will greatly redound to the glory of our profession!

A correspondent of the *Confectioners' Journal* says that banana juice makes a first-class indelible ink. A spot on a white shirt from a dead-ripe banana is marked forever, and the juice from bananas thoroughly decayed is of a bright, clear carmine color.

The Edison Current for Cautery Purposes.—In the *New York Medical Journal* for February 4th, Dr. Edward J. Bermingham, Surgeon to the New York Throat and Nose Infirmary, describes a very ingenious apparatus which he has devised for controlling the Edison current so that it can be used direct for galvano-cautery operations. The apparatus consists of a *rheostat*, made of coils of iron wire and a handle. The peculiarity of the handle consists of its having solid conductors, and the circuit is therefore always closed. It is under the control of the operator's thumb at all times during the operation, and the current can be cut off from, or allowed to pass to the knife instantaneously, and without producing an arc. The apparatus is simple and inexpensive, and from the detailed description given, any electrician can construct it. Dr. Bermingham has been using it for two years and a half for all his cautery operations.

IMPORTANCE OF CORRECT DIAGNOSIS.

BY W. G. FRALICK, M.D., NEW YORK.

THE *progressive* surgeon of to-day stands on the pinnacle of fame; about him a halo; with him a following that our most spacious halls are inadequate to accommodate. His position is one of admiration and envy; the laity moved by his wonderful achievements; the profession clamor to see him and hear of his most recent explorative exploits. His ever-fertile brain has invented some new apparatus. He explains its uses. Eager eyes absorb its intricacies. Deft hands carry home its mechanism and impatiently await a sufferer upon whom they may experiment. They call together *their* circles of lesser lights, and delineate its simplicity and its utility in eradicating disease. They return inflated with reflected glory. His enthusiasm is radiant, his sincerity undoubted. Why should he apprehend danger in his explorations, in removing organs or in cutting out a local active disease focus, though it be ever so dependent or intimately connected with some pernicious diathesis? The *operation* is sure to be successful. The consequences of secondary manifestations are of little import to him. Nor is the possibility of an outburst in a new focus—made active by the recent removal of its neighbor, even though such focus be situated in the immediate vicinity of an organ the vitality of which permits of no encroachment—of any significance. If he be a friend of the family he condoles with them, but has no explanation to offer.

Should a disease manifesting new symptoms (though dependent upon the same diathesis) follow a primary operation, he again sees only a brilliant result of his dexterity, and assures those immediately interested that were it not for this second and *strange* intruder the patient would have made a grand recovery.

I believe that all diseases met with by the surgeon, except those due to mechanical obstruction (as renal calculus, etc.) and those of traumatic origin, are dependent upon some dyscrasy or diathesis. There is some vital insufficiency in the animal economy. This morbific action is general—that is, there are innumerable disease focii throughout the entire organism. It is the concentration and accumulation of this morbific viris at some particular focus, be it situated in the glandular or osseous systems or any tissue in the organism. It is of these active focii that the progressive surgeon says remove. Nor is he then satisfied; he tells you that you must remove some healthy tissue as well, in order that the *entire* disease may be eradicated. I ponder and fear that the eradication of the entire disease by such means would imply the consumption and extinction of the patient. I protest against such reasoning and such limited means of curing diseases of the above order. That many of these disease conditions can be *cured*—and by that I mean

utterly eradicated from the system—I have abundance of evidence. And did these surgeons select medicines specific to the symptoms manifested in each individual case, and apply them faithfully, and use as adjuncts sanitary, hygiene, and dietetics, there would soon be a superabundance of testimony.

The following cases, briefly touched upon, may be illustrative:

Case I.—Boy, 13 years old; scrofulous parents. Attacked first, with sore throat: right tonsil swollen and ulcerated; attending physician lanced it. A few days later left tonsil in similar condition; it was also lanced. The following week sub-maxillary glands on left side involved; soon after cervical glands, same side, were affected. Surgeon made an incision about four inches in length, extending down from groove in front of angle of inf. max. bone; he removed all the glands, along with neighboring tissue involved. The wound did not heal, and two weeks later the above region presented the appearance of having been beautifully dissected, the triangles of the neck with their contents being in sight. It was now apparent that the glands on the opposite side had become involved. They were all removed, tissue scraped, wound closed in customary manner, with antiseptic precautions. This, as on the other side, did not heal—sutures sloughed out, and the process of destruction continued. When I was called, two weeks later, the sight was a most horrible one—sub-maxillary and cervical glands in these regions all gone, bone necrosed at angle on left side, two branches of external carotid had sloughed away, causing almost fatal hemorrhage. I am not sure, but was inclined to credit this to the sol. of carb. acid used. In the wounds there was a total absence of granulations. Boy a mere skeleton. Symptoms, clinical and pathological, pointed to sulphur as *the* remedy specific to the condition. Stopped all other treatment. Gave sulphur and kept wounds aseptic. In two days a few healthy granulations sprung up. Continued *sul.* to third week, when I thought *cal. iod.* specific to symptoms present. In ten weeks wounds completely healed. Child well, but terribly disfigured, which, with proper treatment, might have been avoided and which I hope to relieve this summer by skin grafting. Over a year has elapsed. Boy strong and well.

Case II.—Man, 45 years of age; tuberculosis of knee joint, and had been cut down upon and scraped; later had to have leg amputated; operation successful; patient died three months later with *quick consumption.*

Case III.—Girl, age 11; scrofulous parents. Had necrosis of inf. max. bone; thought to have been due to alvœlur abscess; bone had been twice scraped; went from bad to worse. After two years of suffering she consulted me. This case called for *silicea*, it being specific to symptoms presented. In three weeks no discharge. Two weeks later sinuses entirely closed and child well. Three years have elapsed and no return.

Case IV.—Occurred in a little girl 11 years old, of scrofulous parents. It was observed by the mother while giving the child a bath. She noticed a slight fullness over the surface of right scapulæ, about an inch and a half above the inferior angle and extending about two inches along its axillary border. During next two weeks fullness had increased.

About third week, no pain, slight discomfort, swelling extending over spine of scapulæ, above, and about one inch below inferior angle.

About the fourth week swelling extended over shoulder, above, latterly, crossing the spinal column, and below, reaching about ninth rib. Pain on pressure. Motion of arm restricted.

Between the fifth and sixth weeks, at which time I was first called to visit the patient, I found all these symptoms increased, no sign of fluctuation, swelling hard and unyielding and most prominent between spine of scapulæ and inferior angle. Elbow slightly out from side, a little forward; forearm carried across lower part of chest. Child unable to raise hand to clavicle on well side. Diagnosis by consulting physician on examination made day previous was: Luxation of humerous (*perhaps abscess.*)

I decided the condition to be due to abscess, and proceeded to treat accordingly. I gave *hepar. sulph.* and ordered flaxseed poultices to be applied continuously.

I called next morning and found integument over most prominent point yielding. Temperature normal. Continued remedy and poultices. The same evening softness extended over greater portion of scapulæ. Next morning fluctuation easily detected. I decided to open the abscess in the afternoon. I arrived at 3 P. M. I found the temperature 105°. The patient was at once anæsthetized. I made an incision about two inches in length and removed a little over three pints of pus. I now observed that along the axillary border to within half an inch of inferior angle, the bone to be necrosed, and a semi-circular portion lying between attachment of Teres major and minor muscles extending in, from axillary border to have entirely disappeared. I washed the cavity thoroughly with weak solution of calendular, closed the wound, inserting drainage tube; prescribed aconite. Next morning found temperature normal; prescribed silicea; removed tube several days later. Patient made a good recovery, there being no deformity and motion of arm not restricted. Had I removed all the bone thought to have been diseased—which included the entire portion to which the Teres major was attached, the remaining part of that from which the Teres minor arose—there would have been deformity, as well as diminished strength and impaired motion. Two years have elapsed; child has enjoyed perfect health.

From the above it will be seen that the symptoms were not unlike those of sub-spinous luxa-

tion of humerous, and might have been mistaken for it; also, that it is quite possible to cure disease in bone when engrafted upon a scrofulous person without scraping and removing that which is so essential to health, strength and personal attractiveness.

CLINIQUE.

REPORTS FROM CLINICAL NOTES.

BY H. W. FOSTER, M. D.

Resident Physician Hahnemann Hospital, New York City.

IN thinking over some of the cases in which I have been interested during the last two years, it occurred to me that a few of them might be of interest to the readers of the MEDICAL TIMES.

Case I. January 23d, 1892, I admitted at Ward's Island hospital F. C., laborer, æt. 45. Patient was in a very apathetic condition; in fact, so stupid that we could get no history from him, except that he had had at some time a chill, and that he had pain in his back and legs. On going carefully over him we could find no physical signs, excepting evidence of a very slight bronchitis. Temperature, 102°, pulse 80, and respiration 40 to the minute. Skin dry and hot, tongue dry, no thirst, and the only thing that he seemed to care to do was to lie quietly in bed. Patient was given mostly milk, with some whisky, which, on account of the stupid condition that he was in, had to be given mostly per rectum. He would, however, very slowly swallow small quantities of liquid when put into his mouth. The morning after admission he had lost consciousness, and remained unconscious for *nine* consecutive days, and then it was only very slowly that consciousness returned.

On this morning, the 24th, his temperature was 103.2°; pulse, 80; and respiration 40; evening, temperature, 105.2°; pulse, 92; respiration, 30. Jan. 25th, morning; temperature, 103.2°; pulse, 85; respiration, 32; evening, temperature, 104.2°; pulse, 98; respiration, 34. Jan. 26, morning; temperature, 103.6°; pulse, 90; respiration, 30; evening, temperature, 105.4°; pulse, 92; respiration, 38. Jan. 27th, morning; temperature, 103.2°; pulse, 90; respiration, 34; evening, temperature, 103.4°; pulse 102; respiration, 40. Jan. 28th, morning; temperature, 103.4°; pulse, 106; respiration, 48; evening, temperature, 103.6°; pulse, 106; respiration, 48. Jan. 29, morning; temperature, 103.2°; pulse, 100; respiration, 64; evening, temperature, 104.2°; pulse, 100; respiration, 46. Jan. 30th, morning; temperature, 102.8°; pulse, 100; respiration, 48; evening, temperature, 103.2°; pulse, 96; respiration, 40. Jan. 31st, morning; temperature, 103.8°; pulse, 95; respiration, 45; evening, temperature, 104°; pulse, 100; respiration, 42. Feb. 1, morning; temperature, 100.2°; pulse, 88; respiration, 45; evening, temperature, 102.4°; pulse, 92; respiration, 48. Feb. 2d, morning; temperature, 100.2°, pulse, 82, respiration, 45; evening, temperature, 101.2°, pulse, 92, respiration, 30. Feb. 3d, morning; temperature, 99; pulse, 88; respiration, 24; evening, temperature, 101°; pulse, 90; respiration, 24. Feb. 4th, morning; temperature, 99°; pulse, 79; respiration, 28; evening; temperature, 100°; pulse 80; respiration, 24. Feb. 5th, morning; temperature, 99°; pulse, 80; respiration, 24; evening; temperature, 98; pulse, 80; respiration, 20, after which he remained about normal. Thus the temperature averaged almost 104° for fourteen consecutive days.

The entire house staff, and several of the visiting physicians examined his lungs very carefully, but could find no evidence of anything like pneumonia. There was no eruption on his body, no abdominal distension or tenderness during the entire time that he was in the hospital, nor could we make out any trouble with any of the visceral organs.

He had two small, comparatively normal movements from the bowels on January 25th, also one on the 26th, also one on the 30th, but no more until convalescence was well established, nor were any of the movements at any time diarrhœic in character. He had no delirium, but afterwards said that he could remember absolutely nothing from the time when he reached his bed till he began to regain consciousness, nine days later.

The remedies used were verat. vir., during the first three days, then gels. and phosphorus, 3rd, in alternation. For want of a better diagnosis, we called it *la grippe*, which was very prevalent at the time.

Case II. While substituting for another physician in the country, I was called to a case of double pneumonia, the peculiarity being that the patient, a woman æt. 45, unmarried, giving a history of pneumonia four years previous, developed the disease first on the left then on the right side, and the fifth day after developing it on the left side, developed a crisis, and the sixth day after the right side was attacked, another one. On a Monday night she was taken with a violent chill, followed by a temperature of 103° in axilla, pulse 118; respiration, 30. The next morning, Tuesday, temperature, 102°; pulse, 118; respiration, 30. Up to this time the physical signs, as well as the subjective symptoms, indicated pleural pneumonia in the left lower lobe only. During the afternoon of Tuesday, the second day, she began to feel pain in the right side of the chest, and the next morning the right lower and middle lobes were in the second stage of pneumonia; the temperature then went on, the thermometer in the axilla registering from 102.8° to 104.2°, pulse from 116 to 130; being of good quality, and regular. Respiration was from 30 to 50, Friday evening, the fifth day, running to 62 per minute. On Saturday the patient was very weak, almost unconscious; face had a very dark look; tongue dry; temperature 104° in the axilla; pulse 132; respiration 48. Stimulants were given freely, both by mouth and hypodermically, and as there was difficulty in getting

her to swallow much, rectal alimentation and stimulation were resorted to. During the night, the crisis passed, and in the morning, Sunday, she was quite comfortable, skin and tongue moist. temperature 102.4°; respiration 28; pulse 120 and regular, the left lower lobe showing every sign of undergoing resolution, but the right lower and middle lobes were solid. On Monday, the eighth day of the disease, the seventh after the attack of the right side, she began to be worse again; tongue became dry, and she became very restless, constantly wanting ice in her mouth. Oxygen was then inhaled by the patient every half hour, but seemed to do her no good. She picked at the bed-clothes, and her mind wandered occasionally. The pulse became irregular, and at times intermitted. The right lung showed evidence of just *beginning* resolution, the left one having almost entirely cleared up. The pulse became more and more rapid and irregular, and the patient more and more restless. Heart stimulants, digitalis, strophrantus and strychine had been given during the last four days. The remedies used had been aconite, bryonia, and phosphorus.

I left the patient at this time, and received word later from her physician that she lived till the next Friday, dying early in the morning, having lived the last twenty-four hours without any pulse at either wrist, and scarcely any heart-beat discernible in the chest.

The fact that she pulled through one crisis—the one that occurred at the time of the resolution of the first lung attacked, and became so very comfortable, while the greater part of the other lung was in the stage of red hepatization, and remained so until thirty-six hours later, when the crisis for the right lung occurred, made the case one of special interest to me. It is noticeable that the right lung, although attacked only about eighteen hours later than the left, developed a crisis two days later.

Case III. B. K., a servant in the Hahnemann Hospital, was taken, June 3d, 1892, with a violent chill, followed by a temperature of 103°, soon going to 104°; pulse, 130; and respiration 32 to the minute. Patient had the anxious look and oppressed labored breathing that gave the case very much the appearance of pneumonia. The physical signs showed only a severe bronchitis, which went on for three days, when she was attacked with pleurisy on the right side, the temperature still keeping up from 103° to 104°; pulse, 110 to 130; respiration still labored and from 24 to 40 per minute. In two days more the bronchitis began to improve, the pleural pains still grew worse and extended over a greater part of the right side of the chest. On the day after the pleural pains began there was evidence of some pleural effusion, which condition was immediately followed by severe pains over the region of the heart, the physical signs showing an acute pericarditis. The pleurisy soon began to clear up, the bronchitis was *much* improved, but the pericarditis grew worse, and there was evidence of some effusion in the pericardium, the breathing continuing labored, the temperature still being 102° to 103°; pulse 120 to 130, and very weak.

The patient had aconite at first, followed by bryonia when the pleurisy occurred, and as that disappeared and the pericarditis grew worse, mercurius corrosivus was given. *La Grippe* was very prevalent at the time, and the conclusion was that it complicated these troubles, and caused so much rise of temperature.

The patient made a good, but rather slow recovery.

Case IV. *Iodoform Poisoning* (?) M. B., female, æt. 36, nativity, Germany, married, and mother to several children, admitted to Ward's Island Hospital in March, 1892. Patient was very poorly nourished, anaemic, and hardly able to sit up. For several years she had had ulcers on the right leg, which during the last few months had been paining her much more than usual, and were much more inflamed than they had been; the pus which was forming began to burrow under the skin till it had formed sinuses that were on all sides of the limb, and extended from the ankle to Poupart's ligament, the dark colored, unhealthy pus finding its way here and there through the skin, through which openings gentle pressure above or below them would force quantities of it out. The temperature ranged from 100° to 102.8°.

Patient was put under ether and the sinuses opened and curetted, exposing nearly all the superficial muscles, the ham-strings being almost entirely dissected out. The wounds were then irrigated with a bi-chloride solution, and dressed with iodoform gauze and patient put to bed. The temperature was normal the next day, and she soon began to improve in every way. On the second day following the operation, on account of a slight discharge the dressing was changed, as also it was on the fourth day, iodoform gauze being used at both times. On the morning of the fifth day, the night nurse reported that the patient's mind had been wandering a little during the latter part of the night, and during the day she gradually became more and more violently delirious, trying to escape. Late in afternoon it occurred to me that she might be absorbing too much iodoform, and the dressing was changed, a plain, dry aseptic one being used. The temperature was normal, and had been since the sinuses were opened, and the wounds had every appearance of being clean, healthy, and granulating nicely. The delirium increased in violence during the night, the temperature, which had been normal all the morning, began to rise during the fore-noon, and at 3 P. M. was 105.6°., pulse 136, full and bounding, and the delirium and efforts to escape more violent than ever. She died an hour later. Unfortunately, I could get no autopsy.

Whether it was iodoform poisoning or not, I am not certain, but she was doing so well till the morning of the fifth day, the temperature having been normal ever since the sinuses were

opened, the appetite and general condition improving, as well as was the condition of the wounds, it seems reasonable to think that as so much iodoform was kept in contact with so large an absorbing surface, and a fresh supply used every other day, that a very large amount must have been absorbed, and possibly caused her death.

POINTS FROM PERSONAL EXPERIENCE.

BY GEO. B. DURRIE, M. D., NEW YORK.

ONE of our well known physicians remarked to me not long ago that he had never had occasion in all his years of practice, to plug the posterior nares for epistaxis. It is seldom that a *nose-bleed* is serious enough to call for it, but I had occasion to perform the operation about a year ago, and learned something at the time that I would have been glad to know before, but of which no mention is made in the works on surgery. I was summoned to attend a young man who was said to be in danger of death from an uncontrollable hemorrhage from the nose. It had been bleeding quite profusely for several hours, in spite of every attempt made to stop it, and the patient was considerably alarmed. Resort was had to all the usual methods for checking hemorrhage, but to no purpose, and after the lapse of perhaps two hours (the patient having become quite weak and anxious) I decided to plug the posterior nares. The operation as described in the books should be easy enough, and so it would be were the victim as quiet and devoid of feeling as a wax figure, but with a coughing, struggling, choking man, it is quite another matter. Passing the bougie with ligature attached is not difficult, but when the wad of cotton is fastened to the ligature, and effort made to draw it into place, the trouble begins. Your patient will feel that he is about to be suffocated, and even though considerably weakened by loss of blood, will offer enough resistance to make your task by no means an easy one. After one or two unsuccessful attempts, I found that by passing two fingers well back into the mouth and pressing the cotton down under the arch of the palate, it slipped into place readily. The hemorrhage was controlled at once, much to the relief of both the patient and myself. I had taken the precaution to leave the end of the ligature coming out of the nostril, quite long, but another time shall arrange it so that an end shall come out of the mouth as well, which, though likely to cause some inconvenience to the wearer, will save an immense amount of trouble and annoyance when the time comes for the removal of the plug. And this is the point I wish to make, for in my experience, the *removal* of the cotton is attended with much more difficulty, than the putting in place. I left it in about two days, and then set to work to take it away, as it had accomplished all that was necessary and was becoming offensive. I expected to find it an easy matter, but was disappointed. Attempts to *push* it down with a bougie passed through the nostril were fruitless, and efforts to *pull* it down with the laryngeal forceps were equally unsuccessful. After working at it in various ways till quite tired, I became discouraged, and sent for a throat specialist to help me. He, too, made several attempts to get hold of the little piece of cotton that had done so much good, but failed, and matters were becoming rather uncomfortable, when it occurred to us to pass the ligature that was hanging out of the nostril, through the eye of the bougie, and push it back through the nose into the throat. Catching it there, a little traction quickly and easily brought the offending wad down, and the trouble was over.

Several articles appeared in the TIMES a few months ago giving the experience of the writers with hypodermic injections of strychina in the treatment of inebriety. The statements made were so emphatic and so favorable, that I was encouraged to undertake to cure a case that about that time came to my notice. I had never had the good fortune to find any treatment that seemed of the least benefit in such cases, and therefore was glad to follow in the footsteps of some who had. Dr. Portuloff of Russia was said to have cured 480 cases by hypodermic injections of strychina, and Dr. Portagalow of Samara, 455 cases by the same treatment. A few were given nearer home that had responded wonderfully to the potent drug, so that I felt very sanguine of success, and wished I had known of this effectual remedy long before. I prepared the strychina as directed, 1 grain to 2 ounces of water, and began by giving 5 drops hypodermically twice a day, increasing the dose day by day till towards the end I gave as much as 25 drops a day. The treatment was continued for 3 weeks, but I failed to note any signs of loathing for the bottle; (a symptom which developed very quickly in the cases reported) on the contrary, the patient, who had submitted quietly to the injections, put an end to the treatment, and to my hopes at the same time, by a prolonged *debauch*. I often wonder if the men who report these wonderful results from drugs ever fail. Perhaps not, but yet how difficult it is to act upon the suggestions given, and get anything but disappointment. Perhaps they possess the power of hypnotizing their patients. Another enthusiastic individual has given his experience with the juice extracted from the berries of phytolacca decandra. It reduced his weight, I don't know how many pounds, in an incredibly short space of time, and moreover left him feeling as light and joyous as a boy. Truly a most remarkable drug. But strange to say, I have given it to two persons who were anxious to diminish their avoirdupois and renew their youth at the same time, but up to the present, no results whatever have followed. I am by no means a sceptic in medicine, but nevertheless, I think much is attributed to the action of drugs that has no basis in truth.

A movement is on foot in England looking to the creation of a department of public health with a responsible minister at its head.

The New York Medical Times.

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THE OUTLOOK.

NEWTON struck the keynote of all progress in the acquisition of knowledge when in reply to the question of how he had been able to achieve those wonderful discoveries which have made his name immortal, replied, "by always interesting my mind." The mind alert, satisfied in its pursuit of truth with nothing but that demonstration and proof which cleared away all doubt, evolved one thought after another, until the chain of reasoning was clear, conclusive and exact enough to satisfy the closest scrutiny. All teaching, to be successful, and all learning to be practical, must interest both the mind of the teacher and the pupil. The practical man, the successful man, the man ever ready to cope with difficulties and to meet emergencies, is, and must be a thinker; ready to create as well as to imitate, to formulate new principles and new work, throwing aside if need be to meet conditions, the teachings of the schools, and becoming a law to himself. If the mind is so trained as to insist in its work on accuracy of observation and statement, taking no new step until the present one is mastered, the basis is laid for that independence of thought, that adaptation of means to ends which distinguishes the man of progress from the servile imitator, who marks out no new lines of thought and is careful never to depart from the old and beaten track. When Agassiz of Cambridge and Newall of Baltimore made their pupils experiment for themselves in natural philosophy and chemistry, instead of simply watching their teacher and receiving as passive recipients *ex cathedra* statements, they became active seekers after knowledge, and initiated into those habits of thought and investigation which will enable them to meet the ever shifting conditions which are constantly arising from the new discoveries with which the age is full. And those new discoveries follow each other in such rapid succession as to change the whole field of labor and overturn what was once supposed to be the sure foundations and impregnable walls of science. A single discovery in chemistry, a new application in photography, a utilizing of the power of electricity and lo! the methods of a whole group of industries are changed, and costly machinery and painfully acquired skill rendered obsolete. The man of skilled labor, thoroughly versed not alone in the mechanical manipulation, but in the principles of his profession easily adapts himself to the new conditions. His mental training has made him to a certain extent independent. The developments in psycology and in the whole world of science increase so rapidly and are of such startling power, beauty and brilliancy, that the real scientist is modest in expressing his opinion as to the truth or falsity of claims until each step has been carefully studied in all its bearings. The very magnitude and far reaching power of these discoveries quickens the intellect, intensifies the analytical power of the mind and strengthens its grasp on the lines of truth. So far from being over eager to pull down and leave nothing in the place but ruins, he strives to find something in which he does believe, and becomes all the more critical and careful, the more he becomes assured that belief and not unbelief is the true condition of his life. The turning of the thoughts into new channels, the accepting of new truths and the formation of a new belief is not to build a wall beyond which we cannot pass, not to isolate ourselves within narrow limits, but to open wide the door to a great fresh, pure region, full of fresh truth and new life. The logical training of the mind which enables one to think for himself, and subject the thoughts of others to the scrutiny and deductions of his own reason gives him that liberty which is the fullest oportunity to be and do the very best that is in his personal nature, and this very liberty of thought and action leads to a liberal faith, a faith that believes much and not a faith that believes little, a faith that grows and strengthens, broadens and deepens as it sends out its intelligence into the mysteries of God and gathers new life and new strength in their unfolding.

As we look back as from an elevation through the vista of twenty years, through the two decades of our journalistic life, and mark the mile stones we have passed, we cannot fail to recognize with each successive year, the growing spirit of toleration, the gradual strengthening the lines of truth, and extending them through new channels, liberal principles increasing as the liberty of thought becomes more pronounced. With the progress of scientific study there has been a gradual subsiding of the wars of factions, and that broader liberality which flows from liberty of thought is rapidly taking the place of the bitterness of faction and the slavery of arrogant and tyranical dictation. We cannot fail to note also as we look through these twenty years of editorial work, feeling each beat of the professional pulse, how with ever increasing scientific investigation the heart has strengthened, and the pulse professional become more distinctly defined as the methods of treatment were adapted more and more to the study of nature. It is a matter of congratulation, also, that in the change of opinion and of work which has been so pronounced during the past twenty years, truth has never suffered, has never yielded an iota of its strength by the tearing away the weeds of error from around its roots, or the rush of the storm through its branches. We shall never be entirely satisfied with the thoughts we are thinking, with the work we are doing, but there will always be stirring within us the desire to accomplish something better for humanity than has ever yet been accomplished, and the fact that it can only be done along scientific lines will ever bring the profession more and more *en rapport* with each other.

LEGISLATIVE FUN.

THE Executive and the Legislature are quite justified in lighting up the dry detail of legislative work with a spice of fun. The Legislature was getting dull, the law-making brains sapless; all the originality, all the brilliancy dissipated in the hard logic of new laws. In this emergency one of the members came to the rescue with a bill to prevent ladies from wearing crinoline and hooped skirts. The bill was like a bottle of champagne to each member, clearing away the cobwebs from the brain and rousing into vigorous action all the vital force and vigor of intellect of the members. The Executive, to have his share of the fun, went one better in originality and genius by sending a solemn message to the law-mak ng powers that a superintendent of a State hospital—and an insane hospital at that—had been feeding his poor, crazy patients with oleomargarine instead of good dairy butter, and recommending a law be passed to prevent any such scandalous and reprehensible work in the future. The Executive was charitable enough to believe the officer would not willingly defy public opinion, but sinned through ignorance of the enormous injustice he was perpetrating on his helpless victims. The joke of the thing is that the oleomargarine was bought for just what it was labeled —"Butterine"—and every physician and every chemist who has investigated the product pronounces it just as pure and just as healthy as butter manufactured from the milk of the cow. Chemically, there is no difference; and the butterine, from being less liable to undergo change, is often preferable in taste and keeping qualities to butter. Piraff showed not only science but true genius when he converted the fat of the healthy animal into butter without its first being converted into milk in the udder of the cow. No one enjoys the joke better than our friend Blumer, for he was the naughty boy; and as he congratulates himself on saving money to the State and giving his patients a good thing, he chuckles and says he will do it again.

SECTION OF GENERAL MEDICINE OF THE PAN-AMERICAN MEDICAL CONGRESS.

THE cordial invitation of this section, addressed to the *whole medical profession* is clearly and emphatically voiced in the extract we publish below from the *International Medical Magazine* of March:

"This unique assemblage promises to be one of the most important events that has occurred in the history of medicine in the Americas. Its success is assured by the large number of valuable papers already promised. The Section on General Medicine, which is one of the most important that has been created, bids fair to be one of the most successful in the entire Congress; and already many valuable contributions are in process of preparation, and will be read at the meeting in September. It is hoped, with the hearty cooperation of all physicians living not only in North but also in South and Central America, that the work in this Section will be memorable; and each physician living on this continent is requested to join this most important Section, and to prepare a contribution to be read before that

body. It is especially requested that those intending to join this Section or to read papers shall at once send their names, with titles of papers, to the secretary, Dr. Judson Daland, No. 319 South Eighteenth Street, Philadelphia, Pa., so that they may be noted on the calendar and given their appropriate places."

WOMEN IN MEDICINE.

IT is a matter of congratulation, which every American will appreciate, that the ever widening field of usefulness so rapidly opening to women, is being filled with an energy and talent which places them in the arts and sciences, in general literature, and especially in the medical profession, in the first ranks of successful workers. As one of many illustrations we notice the fact that Miss Inglis has been elected to the post of house surgeon from a large number of applicants of both sexes in the new hospital for women in London. Miss Inglis obtained, at the examination in July last, when a student of the Edinburgh Medical College for Women, the Triple Qualification given by the Royal Colleges of Physicians and Surgeons, Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow. Miss Inglis also obtained the first of the special Pattison prizes for the best examination in anatomical dissection, the second being given to Miss Griffin, who also obtained the Bathgate gold medal in Materia Medica. Both the Pattison and Bathgate prizes are open to male and female students, and as the papers are signed by mottoes only, so that until the award is given the examiner is ignorant as to the successful candidate's name, there was no possible chance of favoritism. Our Presbyterian friends may some day become alive to the spirit of the times and graciously rescind their recent action, shutting ladies out from the office of deacon or any other office in the management of church affairs. Did it never occur to them that women do the work of the church and were it not for them their organizations would be barren of practical results? So with our hospitals and asylums, and homes for the aged and for children; the women are not only their originators, but their life giving and propelling power. In illustration, look at the executive ability displayed by the President and Vice President of the Board of Lady Managers of the World's Fair, Mrs. Potter Palmer and Mrs. Troutman, and the energy and intelligence in the work of their Association. To this Association we shall be indebted for that hospital work which will not only add greatly to the comfort and safety of the thousands who will daily throng the grounds, but present in the ambulance service each with its trained nurse, its general hospital and its movable hospitals or relief stations in various parts of the grounds in which temporary relief can be obtained, a living working, realization of the methods of the best hospitals and training schools in the United States, most of which will be represented with instruments, trained nurses and medical men. To the country physician and to the public generally this department will be full of interest and instruction.

THE FUTURE.

STATISTICS show that in this country marriages are on the decrease and divorces on the increase, the latter ranking next to Japan in all countries where statistics are kept. In Japan the population has increased during the past twenty years from 33,000,000 to 40,000,000, notwithstanding the birth rate is less than any other nation in the world except France. The increase of population is accounted for by the fact that notwithstanding the birth rate is exceptionally low, so also is the infant mortality. It is very easy to obtain a divorce in Japan, as may be imagined, when in one year the marriages were 325,000 and the divorces 109,058, or less than one in three. Possibly if divorces were as easily obtained in this country, they might be almost as numerous. The papers are full of infantcide, wife poisoning and abductions, and the records of financial prosperity and crime bring us face to face with the startling fact that we are increasing in a greater ratio in the latter than in the former.

In 1850 there was one criminal in 3,500 of our population, but in 1890 there was one in 786.5, a terrible increase in forty years. The republic is young. Reckoned by the age of nation it has hardly yet cast aside its swaddling clothes, and yet in energy, in prosperity, in health and strength, it stands as ancient Rome stood, a giant among the powers of the world. There must be some way to stay this mad rush of crime; some remedy for this bacteria which is poisoning the fountains of moral and physical health. Every few years there runs through every vein and artery of the nation in some great financial crisis the hectic fever of a wasting disease. The body recuperates again and again, but will not the time come when vitality is exhausted? The church has failed, in running along the old beaten track, in enforcing

a remedy. It is too slow in this lightning age, it looks over the heads to what people ought to be, and fails to comprehend the present and the toilsome steps upward until the heights are reached. They do not touch the right point or work fast enough. During the days of Clay and Webster the chaplain of the Senate was going through the morning prayer, every word uttered slowly and with proper dignity, Clay whispered to Webster, "I have got a stable boy at home who would pray the chaplain to hell and back again in five minutes." The stable boy was the eloquent Bascom, afterwards a bishop in the Methodist Church, whose magnetic power would clutch as in a vice the hearts and consciences of his hearers. The great working interests of the nation must be *en rapport* with each other, each contributing its quota to the general work. Foremost in this work must stand a cultured and scientific medical profession, searching in heredity, in mental and moral instincts, in brain and physical organization, in climate, in surroundings, the cause of crime, of poverty, and mental degredation. The diagnosis must be made by the scientist with its centre in the medical profession, and the remedy enforced by the united action of the philanthropist with his wealth, the church with all its power, woman with her higher spiritual intuition, not alone in her own home, but with voice and pen as missionary in a great and holy work, with broad-minded and far-seeing statesmen to push forward the work with the concentrated power of the State.

DR. PETERSON prefers the sulphate of duboisin to hyosciamene in quieting maniacal excitement. Professor Mondu recommends it in paralysis agitans to quiet the trembling, in doses hypodermically of $\frac{1}{300}$ to $\frac{1}{200}$ of a grain.

THE passage by the legislature of the Croton Watershed Bill ensures us at all times an abundance of pure water, uncontaminated by sewerage. Under the provisions of the bill the city is empowered to spend $350,000 annually in the purchase of land adjoining all water courses, until all the streams and lakes in the Croton region are freed from the nuisances which now defile their banks. This is of the utmost importance, as even the most carefully constructed filters fail to remove the disease germs, and water apparently clear as crystal and perfectly pure, may contain, in a condition so soluble as to defy detection, except by the chemist or the microscope, disease germs which may plant the seeds of disease fatal to life. For the same reason, the use of artificial ice, made from distilled water, is rapidly on the increase and such spring waters as the Clysmic and the Londonderry Lithia found on almost every city table as a daily drink.

THE introduction of the bicycle in this country, its healthfulness as an exercise, and its cheapness as a means of rapid locomotion, is doing more to improve our roads than any other argument which has been used the last half century. So far from being a passing craze the bicycle has come to stay, and is becoming more and more popular as its merits are better known. The exercise for ladies is entirely different from that of the sewing machine, which often brings on weakness of the reproductive organs. The bicycle has been so far adapted to ladies that it is recommended as more preferable as an exercise to horse-back riding, with the advantage of always being ready and with no expense of keeping. As the machine becomes more popular, we may yet be blessed with roads which will compare favorably with those of the old country.

ONE of the first steps in the new national quarantine law has been the transfer of army surgeons to European ports as quarantine officers for four years, to prevent the importation of cholera and other pestilential disease. This is looking after our interests in the right direction, and with the port of departure and of entry guarded with scientific precision, there will be but little danger of the cholera reaching our shores. Dr. R. M. Woodward has been assigned to Rotterdam, Holland; Dr. Purriana to Liverpool; Dr. Pettus to Southampton; Dr. Boseman to Antwerp; Dr. Irwin, Marseilles; Dr. Houghton, Havre; Dr. Godfrey, Naples; Dr. Magruder, Genoa, and Dr. White, Hamburg. It will be almost impossible for a vessel to sail from any port in Europe to the United States without first having been carefully inspected and received a certificate of health from one of our quarantine officers. Secretary Carlisle has issued instructions to quarantine officers on both sides the ocean, which will go into effect May 3d, 1893.

CITROUS FRUITS.—The citrous fruits have always been recognized as cooling and beneficial in febrile conditions. Within the past few years the grape-fruit has become an especial favorite in the sick room and at the table, the slight

bitter of the covering and the delicate acid acting not only as a febrifuge, but as a tonic. In the Imperial Health Office of Germany experiments have recently shown that the bacteria of cholera, when brought in contact with the cut surface of oranges, lemons or grape-fruit, are destroyed in a few hours. Since these results have been obtained the Imperial Health Officers consider it unnecessary to place any restrictions on the transit and sale of these fruits, even if it should be ascertained that they come from places where cholera is prevalent at the time. Not a single instance was noted in which cholera was disseminated by either oranges, lemons or grape-fruit; on the contrary, the free use of these fruits seemed to act as a preventive, not only to cholera, but to billious and typhoid conditions.

ONE of the most interesting of all the conferences which will be held at the Columbian Exposition at Chicago will be that of the Twentieth National Congress of Charities and Correction, commencing June 8th. Nearly all the States of the Union will be represented and the proceedings will be devoted especially to the progress made and the reforms accomplished during the past twenty years. The International Congress of Charities, Correction and Philanthropy, which will follow immediately the National Conference, has provided for section work and discussion. Aided by past experience a line of work will be marked out for the future which it is hoped will be rich in practical results.

From Middletown *Daily Times*, March 17th.

THE STATE HOSPITAL TRUSTEES.

The Change in the Board—Dr. Guernsey's Retirement—It is very much Regretted by his Associates—He has been a most Useful Member and Agreeable Gentleman—A Hope that Harmony and United Counsels will Continue to Prevail—His Successor.

As was stated in the *Times* yesterday the members of the Board of Trustees of the New York State Homœopathic Hospital whose terms had expired were re-appointed by Governor Flower, with the exception of Dr. Egbert Guernsey, of New York City.

The cause for this, as we understand it, is the fight made upon Dr. Guernsey by a faction of the Homœopathic school of medicine in New York City. It is probably something of the same nature as the disagreements and quarrels that prevailed among the Homœopathists at the time the Asylum at Middletown was started, and which came near wrecking it at the outset.

Those who were in the Board at the beginning will remember the controversies between the "high delusionists" and "low delusionists," and other kindred differences that came up from time to time, causing division and much bad blood.

But these were finally given a rest, and for many years now harmony and peace have reigned, and all the members of the Board have seemed to be working together for the best interests and success of the institution—and that it has been a great and pronounced success the record of its achievements shows. We cannot help thinking that the Governor has made a grave mistake in again opening these old sores by allowing himself to be influenced to displace one who has done so much to make the Asylum the success it is.

Dr. Guernsey was one of the oldest members of the Board of Trustees in point of service, as he has been one of the most intelligent, laborious, faithful and efficient. He has been identified with the Asylum almost from the start. His membership in the Board extends over a period of some nineteen years. For the past two or three years he has been its Vice-President. But few have attended the stated and special meetings of the Board more regularly. He has often, notwithstanding the demands of his extensive private practice, come up the day previous to the called meeting, in order that he might as chairman of the visiting committee, make a thorough inspection of the buildings and all pertaining thereto, listening to the complaints of patients and making many pertinent suggestions for the benefit of all concerned.

He has as the head of such committee and with the concurrence of its members, made many comprehensive and valuable reports. In short he has been a most devoted and indefatiguable as well as useful member of the board and has impressed himself upon the management in various ways that have tended to the advancement and success of this important philanthropic institution in which we all feel so much pride.

Dr. Guernsey, aside from his practical business qualities, is a cultured and very companionable gentleman. His genial presence will be greatly missed at the meetings of the board. He will carry with him the best wishes of each and every member of it—those who have with him borne the heat and burthen of the day, as well as those who more recently became associated with him in the management of this charity—for his continued success and fame in his chosen profession, and his comfort and happiness in private and social life.

His successor, Dr. J. McE. Wetmore, is a resident of New York City. He graduated from the College of Physicians and Surgeons in 1855. He is consulting physician of Laura Franklin Free Hospital for Children; Censor of the New York Homœopathic Medical College: member of the American Institute of Homœopathy, New York State Homœopathic Medical Society and New York County Medical Society. He is also Homœopathic Medical Examiner of the State Board of Regents.

We assume that he is a gentleman well fitted for the honorable position for which he has been named, and that he will bring to the discharge of his duties an earnest purpose to co-operate with his fellow members in furthering the best interests of the New York State Homœopathic Hospital, that through the harmony that has prevailed in the Board, and the united counsels and intelligent and efficient management of its Trustees, Superintendent and assistants has attained such a high standing in the State.

Dr. Guernsey, by the way, is one of the editors of the MEDICAL TIMES, a journal that stands high and exerts a great influence in the School of Medicine to which he belongs, and snatches time from the exactions of his large practice to contribute many learned and valuable articles to its columns.

From the *Middletown Daily Times*.

HOMŒOPATHIC STATE HOSPITAL.

REPORT OF THE VISITING COMMITTEE MADE AT THE MEETING OF THE TRUSTEES.

Following is the report submitted by Dr. Guernsey, Chairman of the Visiting Committee, at the quarterly meeting on Thursday, March 9th:

The Visiting Committee respectfully report that their quarterly inspection shows the sanitary and hygenic con-

dition of the institution excellent in all its departments. The rooms and wards are clean, and the ventilation even in the hospital wards so complete that the air is kept from unpleasant odors. Not only are the quarterly inspections made with great care and minuteness, but some member of the Visiting Committee is in the hospital every week ready to receive any complaints.

The fire escapes are now in process of erection. The necessity for them is intensified by the recent burning of the buildings at the St. Lawrence Hospital immediately after completion.

Excellent as the results are in recoveries, they would be still better was it not necessary, on account of the large influx of pauper patients to utilize the day rooms, so important in a hospital, for hospital wards, instead of the purpose for which they were originally designed.

An inquiry into the cause for the excellent results obtained in this hospital for the insane has been answered by the thorough ventilation and the homelike condition of the hospital, the utilizing of amusements, work, and the kindness of manner of physicians and attendants and a diet specially adapted to those confined in hospital beds and those in better physical condition. In the insane there is apt to be a lack of nutrition, and it is found as a general thing when there is increase in weight there is an improvement in mental condition. The diet list for the hospital is as little stimulating as possible, but strong in all the elements of nutrition.

Last year 30 patients under the diet furnished gained 240 pounds in a month with a marked improvement in mental condition. In cases of dementia, easily diagnosed, the increase of flesh is often attended with increased dullness.

In going into our apothecary room we found no hypnotics and few opiates given out for their toxicological action. The remedies used are simply aids to the process of nature, worked out in food, pure air, cleanliness, etc., in bringing about recovery, in meeting immediate conditions. The object of the physician is to aid nature in every possible way to throw off obstructions and obtain results which she alone can produce. The treatment we are glad to see in this hospital is common sense treatment backed by the most advanced resources of science. Theory is tested by practical results and must bear legitimate fruits or step aside for something better. Rich as the fruits have been, we shall be far from satisfied if every year does not bring relief to a larger number of sufferers.

From *The Conglomerate.*

EX-TRUSTEE GUERNSEY.

Dr. Guernsey, after many years of efficient service as trustee, was not re-appointed by Governor Flower, and consequently his relations with this hospital have ceased. We regret to lose Dr. Guernsey, who has been a pillar of strength to the hospital, and his loss seems to be the outcome of a sort of factional fight among the Homœopaths. Our advice to them is to hang together and reserve their ammunition for the enemy.

From *New York World*, Feb. 20th.

IT'S NICE TO BE SICK HERE.

A MODEL HOSPITAL, WITH MODEL NURSES, ON WARD'S ISLAND—BUILT IN TWEED DAYS FOR AN INEBRIATE ASYLUM.

It did not Succeed in its first Purpose, and now it is a Homœopathic Hospital—There are Women Nurses in Male Wards, and Dr. Stewart has Designed Fetching Uniforms for Them—An Experiment that Works Well.

If you ask the average citizen which is the most comfortable hospital under the care of the city he would not answer you correctly. If you tell him it is on Ward's Island he would laugh and think that you meant the insane asylum. For some unexplainable reason the average citizen knows nothing of the hospital there which has no connection with the insane asylum.

That the hospital should be the least known is strange, for it is remarkable for many things beyond the fact that it is the most comfortable one belonging to the city. The unfortunates who spend much time in the public hospitals know about it. To begin with it is a purely Homœopathic hospital, the only one under a public department of charities and correction in the country.

The hospital building lies to the east of the insane asylum, so that it is not visible from the New York side. It has the finest location on the island. It was built during the Tweed regime for an inebriate asylum. It probably cost much more money than it should, but it is a particularly fine building. It was intended as a pay hospital, with some accommodations for charity patients. This explains the great number of private rooms which are not found in any of the other hospitals. This is especially favorable for the treatment of the very sick and the severe surgical cases.

Whether it was because there were few inebriates in New York who wanted to be cured, or whether they did not want to pay, or for some other occult reason, the inebriate asylum was never a success. The Homœopathic Hospital grew out of a conversation at the Union League one night a good many years ago. Dr. Egbert Guernsey and Dr. W. H. White asked one of the Commissioners of Charities and Correction why the city did not have a hospital devoted to homœopathic practice. In those days the rivalry between the old and the new schools was much more active than it is now. Dr. Guernsey, who was the physician of many very rich men, proceeded to show that the people who took little pills when they were sick paid nearly half the taxes of this big town, and he thought that the Homœopaths should have a hospital under the city's care. It was out of this conversation that the Homœopathic Hospital came into existence.

The hospital is now officially known as Ward's Island Hospital. The change was made recently. But it will be years before those who know about it cease to call it the Homœopathic Hospital. And a good many people do know about it. As it is the aristocratic hospital under the department, it has been taken up by the aristocratic people of the city. Many women whose names are prominent, like Mrs. Beekman de Peyster and Mrs. Rhinelander Jones, have been especially generous towards it. There is, however, no distinction in the patients who are sent there. The apportionment is merely a matter of good fortune. There are 500 patients there now. The hospital has accommodations for 560 exclusive of the convalescent wards.

What is especially interesting about the hospital just now is the training-school for nurses. Dr. George Taylor Stewart, who is the chief of staff of the hospital, is very much interested in the training-school. Dr. Stewart has been in charge of the hospital since 1890. He is a son of ex-Congressman Stewart, of New York.

The nurses in the Homœopathic Hospital have such pleasant faces and are so charmingly dressed that you cannot but feel that the patients have a pleasant time of it. Every one who has seen the uniform they wear says that it is the most attractive to be found in any of the hospitals. The frock is made of light blue gingham, with sleeves which are puffed to the elbows and fit closely from there to the wrist. These sleeves add much to the pictutesqueness of the uniform.

Instead of the ordinary bit of lace resting upon the top of the head the nurses of the Homœopathic Hospital wear light frames over which snowy linen fits, making a dainty cap. They wear Byronic collars, with graceful hanging white ties. White aprons with cross belts add to the costume. At their sides they wear a chatelaine with scissors, pincushion and other articles which are in constant use in the wards. These chatelaines will not jingle, which is an important consideration. Dr. Stewart designed the uni-

form, and he is very proud of the work. The Rev. C. W. de Lyon Nichols, the chaplain of Ward's Island, says that it is complete from an æsthetic point of view, and the nurses say that from a working standpoint it could not be improved upon.

The applicants for admission to the training school are selected by Dr. Stewart himself, who recommends their appointment to the Commissioners of Charities and Correction. In order to gain admission the applicant must be over twenty-one and under thirty-five years old. She must bring a certificate from a physician, showing that she is in good health. She must be able to read aloud plainly and write legibly and accurately. The blank which is furnished her compels her to state her exact age, height and weight, together with previous occupation and whether she is married, single or a widow.

The applicants spend a month in the hospital on probation. Then, if they are acceptable, they are enrolled as members of the training school. During the first year they receive $10 a month. During the second year they receive $15 a month. That isn't much apparently, but it must be remembered that they have no expense except their clothing, and they are fitting themselves for a business in which they can earn $25 a week after the two years. And they live very comfortably. They have pleasant rooms, large, light, comfortably furnished, with a view and air that people know nothing about in their New York houses.

The nurses are on duty from 7 in the morning until 7 o'clock at night, with an hour for dinner, and when hospital duties permit, they have additional time for rest and study. Each year they have a vacation of two weeks.

First the nurses are taught bed-making, changing sheets and positions of patients while in bed, cleanliness of patients and utensils. Then they are taught how to dress wounds, the best methods of friction of bodies of patients, giving of baths to helpless patients, bandaging, making reports to physician, methods in the management of the convalescents and preparing delicacies for the sick. They are given instruction in anatomy, physiology, toxicology, &c.

Dr. Stewart is of course the superintendent of the training school. The director is Miss Emma F. Lencke. She gives individual instruction to the nurses at all times. At meals, where she sits at the head of the table in the pleasant dining-room, she talks to them. Then at night she gives lectures in the little club-room on the same floor as their sleeping-rooms. In addition there are lectures by the Medical Board of the hospital. Dr. Guernsey, who has been President of the Medical Board ever since the hospital was organized, gives a course of lectures to the nurses. So do Dr. Alfred K. Hills, Dr. Connell, Dr. O'Connor, Dr. Rankin and others.

Dr. Stewart is the first chief of a city hospital to introduce women nurses in male wards, and the other hospitals under the city's care are about to follow suit. In the Homœopathic Hospital all the nursing is done by women. There is a man in each male ward who performs such duties as could not be expected of a woman. The patients will do much more for a woman than they will for a man. There was one patient who could not eat for twelve days. He said food nauseated him. Dr. Stewart sent a woman nurse to him. The man ate readily under her persuasion and got well.

John L. Sullivan is now said to be a paralytic. By the long continued alcoholic soaking to which his tissues have been subjected, the connective tissue elements have become hypertrophied, the increased growth causing atrophy of the muscular fibrillæ. The magnificent development of muscle that won him so many victories has thus given place to a spurious hypertrophy; the bulk remaining, the consistency even increased, but the force has imperceptibly diminished, until he again exemplifies the aged simile of the oak of fair appearance, but rotten at the heart.

BIBLIOGRAPHY.

The Transactions of the Forty-fifth Session of the American Institute of Homeopathy, held at Washington, June 13-17, 1892, contains the usual amount of papers upon various subjects, but nothing calling for special mention.

Diseases of the Skin, by Charles C. Ranson, is a continuation of the very excellent Quiz series published by Lea Brothers & Co., which gives in the form of question and answer an immense amount of condensed information.

The third edition of Schusler's Twelve Tissue Remedies, by Wm. Boericke, M. D., and Willis A. Dewey, M. D. has been revised and enlarged by the addition of over seventy pages. The work now contains all that Schusler has written on the subject with important additions from other sources. Boericke & Taffel, publishers.

THE YEAR-BOOK OF TREATMENT FOR 1893. A critical review for practitioners of medicine and surgery. A series of contributions by twenty-two writers. In one 12mo. volume of 500 pages. Cloth, $1.50. Philadelphia: Lea Brothers & Co., 1893.

This is a reprint of the ninth English edition of the Year Book of Treatment and is the gleaning by prominent English authors from the great world of periodical literature of the newest ideas and best thoughts of the great army of workers in our profession. Like its predecessors, it will be found of value as a work of reference.

A SYSTEM OF GENITO-URINARY DISEASES, SYPHILOLOGY AND DERMATOLOGY. By various authors. Edited by Prina A. Morrow, A. M., M. D., with illustrations. In three volumes, Vol. 1. Genito-Urinary Diseases. New York: D. Appleton & Co.

In this large volume of over 1000 pages, thirty-two authors are represented who discuss almost every disease connected with the Genito-Urinary organs. The majority of the diseases are surgical, and the most advanced surgical treatment is given in detail with illustration of the instruments and the manner of operating. The associated plan of constructing essays by division of labor seems to be the favorite one of the present day. A more extended notice will be given on the completion of the work.

The library of the *Progrès Medical* has published, among others, the following works during the year 1892.

1st. The second edition of the first volume of Tuesday's lectures of Professor Charcot, entirely reviewed by the professor, making a volume of 500 pages, illustrated by 108 plates. Price, 20 francs.

2d. The first volume of the Clinique of Diseases of the Nervous System, of Professor Charcot, arranged by D. G. Guinon, volume in octavo, of 560 pages with forty-seven illustrations and two plates. Price 12 francs.

3d. The 12th volume of Clinical and Therapeutic Researches upon Epilepsy, Hysteria and Idiocy, by Bournerville, in octavo, 250 pages, with thirteen figures in the text and two plates. Price, 5 francs.

4th. The second edition, revised and corrected, of The Functions of the Brain, by Jules Soury. Volume in octavo, 464 pages, with six figures. Price, 8 francs.

5th. New Lectures upon Cebral Localities, by David Ferrier, translated by Dr. Robert Sorrel, volume 120 pages, with thirty-five figures. Price, 3 francs, 50 centimes.

6th. History of Autopsies of Idiotic and Epileptic Children of Bicetre, by Bournerville. Volume in octavo, 140 pages, eleven figures, one plate. Price, 3 francs, 50 centimes.

7th. Practical Theoretical and Therapeutic Treatise on Scrofulo-Tuberculosis of the Skin and Adjacent Mucous

Membranes, by Professor H. Leloir. Volume in quarto, 465 pages, with thirty figures. In the text are twenty-two tableaux and an atlas of fifteen plates. Price, 30 francs.

8th. The Sewerage and Purification of the Seine, by Bournerville. A pamphlet of thirty-two pages, in octavo. Price, 30 centimes.

9th. Onomatemania, by Charcot and Magnan. Pamphlet in octavo, 64 pages. Price 2 francs.

The volumes are sent free, and a great reduction in price is made to subscribers for the *Progres Medical*, the *Archives de Neurology*, etc.

The general catalogue will be sent free on demand.

The fourth volume of the International Clinics of the second series, opens with a life like bust of Dr. H. I. Bowditch, and is followed by an eloquent and appreciative eulogy by Dr. F. I. Knight. The volume contains fifty clinical lectures upon a large variety of subjects, and all rich in clinical facts and thoughtful deductions and treatment. J. B. Lippincott Co., Philadelphia.

GENERAL CATALOGUE OF COLUMBIA COLLEGE.

At a meeting of the Trustees of Columbia College, held on the sixth of March last, the publication of a new General Catalogue of Officers and Alumni was authorized, and a committee, consisting of Professor J. Howard Van Amringe, and Mr. John B. Pine, (Clerk of the Board), appointed to prepare the same.

The new edition, which is to be issued in 1894, will be the eleventh since the foundation of the college, and will be also the most elaborate and comprehensive. The dead and living alumni of the college now number considerably more than eleven thousand. In previous catalogues, all alumni have been divided into schools and arranged by classes, with an alphabetical conspectus. Only the degrees of the graduates were added to their names.

It is the intention of the present committee, for the first time, to supplement the names of living alumni with their addresses and with such further information as may properly enter into a work of this description, including the professions of the men, their degrees, colleges where same were granted, their titles, judicial, military, clerical or political, etc.

While the committee is in possession of the present addresses of a great number of the alumni, the list of graduates whose whereabouts are unknown is still appallingly long. To locate these men will be a difficult and troublesome task which can only be accomplished by patient and persistent effort on the part of the committee, entailing a great amount of clerical work, correspondence, etc., and by the cordial co-operation of the alumni themselves.

It is this co-operation which is most earnestly desired by the committee, and they appeal to every alumnus of the college, no matter of which school, to assist them with whatever pertinent information may be in his possession. It will, at least, be possible for every graduate of Columbia who reads this, to forward to the committee his own name, class and present address, with such other facts regarding himself as he deems material.

The list of the missing among the graduates in medicine is, notwithstanding the excellent catalogue of the College of Physicians and Surgeons, published in 1891, especially lengthy. Physicians holding diplomas from the Medical School are most urgently requested to respond to this appeal.

Alumni who may be so far interested in the progress of this important undertaking as to go beyond the data concerning themselves will confer a special obligation upon the committee if they will inform them: (1) of any living graduate known to be now residing or practising his profession outside of the United States, with his address and class, when known; (2) of the death of any graduate occurring within the past five or six years, date and place, when known; (3) of recent changes of address among alumni; (4) of anything else suggested by the above description of the committee's intentions.

The work, when completed, will be circulated generally among the alumni, and it is hoped that it will exert an important and sensible influence in bringing them into closer union; besides serving many useful purposes that need not be here detailed.

All correspondence may be addressed to the Committee on the General Catalogue, Columbia College, New York City.

CORRESPONDENCE.

OUR LONDON LETTER.

London fogs, changeable weather, and sore throats have been the subjects of general conversation for some considerable time, and as a result of the last named commodity the physicians throughout these islands, generally, are somewhat enriched. The visitations of the influenza durthe past few years have certainly scared the public, and, consequently, a mere touch of sore throat results in a medical man being sent for without delay. The British public have, for a long time, been accustomed to have these trivial (?) maladies treated by vendors of quack medicine, but they now see that it is much the wiser and eventually the cheaper method, to consult a man whose every day routine brings him in contact with all manner of ailments, the result of which is a certain familiarity of the premonitory symptoms, which goes a long distance in keeping at arm's length a disease which, if neglected, so frequently has such a melancholy ending.

A feature in the newspaper and other announcements of the more respectable proprietary preparations is a species of respectful references to medical men, and this is undoubtedly due to the determined hostility which the druggists of this country are showing to patent and proprietary medicines. It is now by no means uncommon to read an advertisement recommending the peruser to refer to his doctor before purchasing a bottle of the article at issue; and it is very seldom that such is a stranger to any medical man, the process of sampling every doctor having been reduced to a fine art.

An institution for the purpose of investigating the nature of snake bites is shortly to be opened in Calcutta. There could not be a better location for prosecuting the inquiries it is proposed to make, and it is earnestly hoped that good results will ensue, as the people of the east are comparatively ignorant of what to them must be a great source of anxiety, judging from the number of persons who annually lose their lives simply through not knowing a proper antidote to the poison which may have been introduced into the blood. All the known reputed cures for snake bites will be tried and the properties of the venom investigated. Altogether, the inquiries promise to afford much valuable and interesting information to the medical world.

Of provincial medical societies, that of Manchester, the headquarters of the cotton industry, continues to show that its members are thoroughly up to date. At a recent meeting there, Dr. Roger Williams read an extremely interesting paper on cancer and the mortality arising therefrom. He drew comparisons between the results of 1838 and 1890. It seems that in the first mentioned date only one in 148 deaths was due to cancer; while in the last named year one in every 28 succumbed to this horrible affliction. Statistics from many other countries show a similar increase; and it is statements such as these that impress upon one the many opportunities which exist in the realm of medicine for bringing into fame anyone who happens by diligent research or otherwise, to discover some really serviceable process of ridding the human race of one or other of the ailments which, at present, baffle the combined skill and genius of our most eminent and

respected preceptors in the art of conquering suffering and its associations.

It is very difficult to account for this extraordinary growth of cancer, but many who have gone carefully into the subject are of the opinion that it is connected with the growth of population, and if the exception makes the rule we have certainly an instance, as in Iceland, where the population is decreasing, the ratio of cancerous affections is largely increasing.

H. C.

MORBID SPONTANEITY.

In 1882, in a lecture upon spontaneity in microbian diseases, M. Jacoud concluded that what renders the bacteria infectious, is its progressiveness, not its nature; for the pathogenic properties are only the properties that the bacteria preserve in their generation and culture. In 1883 he again said that in despite of recent discoveries, the morbid spontaneity remained dormant with its power intact. In 1885 M. Jacoud demonstrated that as respects tuberculosis, the etiology maintained all its force in the presence of microbic pathogeny. In 1888, that with regard to pneumonia and endocarditis, he must admit that as far as the microbe was concerned, its infection was produced only by the enfeebling of the organism giving virulence to the microbes which it contained within itself.

Pathogenic microbes penetrate the organism by dissemination, and produce many different maladies, according to the general conditions of the individual. In a large number of microbic diseases these agents may exist in organic centres without being hurtful. They manifest special pathogenic properties only as a consequence of organic perturbations or disturbances.

There is then an autogenesis, and not an extrinsic genesis of disease. Cold, injury, somatic or cosmic agencies, these are the true causes that transform those conditions which have been supposed to be created by microbes in the organism, into morbid developments and the evolution of disease. But if the doctrine of morbid spontaneity has been for years obscured by a dense cloud, this obscurity has resulted from the premature application of the new facts given to pathology by microbiology. In effect three conclusions have been accepted which tend to nothing less than the suppression of ordinary etiology. Microbes have been considered as foreign to a sound organism, and hence the intrusion of the microbe is regarded as a cause of disease. In the second place microbes have been considered as always reproducing the same morbid type. So that a given microbe corresponds to a given disease as cause and effect. The etiology then becomes ideal. In the third place, pathogenic microbes have been considered as unchangeable in kind, which was to affirm the immutability of cause and effect, and to deny to the organism all modifying power, thus establishing the victory of the new doctrine over the old doctrine of spontaneity. But more profound researches have rapidly demolished this brilliant edifice.

It has been discovered that pathogenic microbes are not entirely strangers to the organism. That a goodly number live habitually in certain organic localities. Disease, then, is no longer an accident due to microbic penetration. A given microbe may produce many different maladies, and morover the same disease may come from different microbes. In fine, it has been found that microbes were subject to polymorphism, which is very near to transformation.

Here then are the true interpretations of microbiology, of etiology and of the importance of morbid spontaneity. If certain pathological microbes can exist in a healthy organism, disease does not necessarily correspond to their penetration, since the presence of these microbes is compatible with health. They are not then always and of themselves pathological or pathogenic; they eventually may become so by reason of the somatic or cosmic influences which may cause disease. It is the spontaneous operation of the organism alone, which, by modifying the condition of its anatomical elements, causes the microbe to pass from a state of inertia to one of activity. The first act is the abnormal work of the organism; the microbe is but the instrument.

Spontaneity varies with the individual. Each one responds by his morbid peculiarity to the same microbe. For example, in individuals attacked by cold and subject to the same microbe, the pneumococcus, streptococcus, and staphylococcus, each individual will have a different malady, one an angina, another à pneumonia and the third, an abscess or an endocarditis. It is this plurality of morbid manifestations that takes away from microbes all specific character, and affirms the autogenesis of disease. The etiology, founded upon temperament, constitution, heredity, and exterior causes, remains intact and dominant.

Microbiology is enriched by another fact, that of possible transmissibility. Diseases which may be developed spontaneously, can also be communicated to healthy individuals by extrinsic causes, dessemination, respiratory or digestive absorption. But this mode is also dominated by morbid spontaneity, for it is this alone that determines in the new centre or locality of attack, the activity or inertia of the pathogenic elements. A parallelism of toxic and infectious diseases has been made. In both of these, the poison will only act if the organism is disposed temporarily or hereditarily. Without that, it remains inert, or causes slight disturbance. The same is the case with microbes. They may deposit an infecting substance, but it can only act with the consent of the organism.

There are then, "en resume," in diseases, two etiological modes of development, an internal or intrinsic genesis, and an external or extrinsic genesis by transmission or heredity. Between these two modes of transmission, observation has demonstrated considerable points of difference. In autogenesis, the results of microbic activity are variable in the same micro-organism. Here there is no specific characteristic quality. When there is an extrinsic genesis, the effect is similar in a majority of cases, to that of the individual from whom the microbe proceeds. An example will make this difference more intelligible. Under the influence of cold, the pneumococcus becomes pathogenic in many individuals at the same time. One may have pneumonia, another, pleurisy, a third, enducarditis, a fourth, meningitis. The pathogenic microbe is indifferent. It acts simply as a phlogogeue or promoter of inflamatory action. Let it act in another case by transmission from one to another, then the pneumococcus will reproduce pneumonia, if it comes from a case of pneumonia; it is no longer simply a phlogogeue. Plurality of action is replaced by the reproduction of homologous morbid phenomena. It is an outbreak of a specific attack, proceeding from the original morbid locality, the same as in cases of transmission, and calculation must be made from individual aptitudes and the modifying capacities of the organism. This capacity of modification may extend even to a complete transformation of the action of the microbe. Here are two examples of these heterologous infections. An Egyptian brig arrived at an English port with dysentery on board. It caused an epidemic of exanthemathous typhus among the English of the population who were in communication with the brig, while there was not a single case of the disease in the town. A soldier of Tonkin left the colony in good health, and afterwards passed about six weeks in a cholera district, at first on board ship, and after at the lazaretto of Poulocoudor. He was taken down with dysentery. During his sojourn at Tonkin, he had lived in a dysenteric locality without contracting the disease. The appearance of the dysentery in a cholera locality proved the power of transformation of the organism.

What are the diseases that can undergo these transformations? To know them, it suffices to enumerate the microbes which can eventually become pathogenic. They are the pneumococcus, the staphylococcus, the streptococcus, the bacterium coli, without counting other species, less well defined, that pullulate and germinate in the skin

and in the different cavities of the organism. There is not a single one of these microbes which cannot, by reason of a modification impressed upon it by the organism, take on pathogenic properties.

The possibility of autogenesis belongs then to all infectious maladies. The "bacterium coli" may engender typhoid fever, choleriform affections, even cholera itself, which is not always characterized by the "rod bacillus." Pneumonia, pleurisy, bronchitis, may present many different microbes. It is folly to establish an identity between infectious and specific diseases. These last have characteristics that are incontestible, and always the same. So then, according to observations made from 1882 to 1888 there are five principal and well defined fundamental conclusions. 1st. The extrinsic cause of disease that is foreign to the healthy organism. 2d. The unity of causation for each malady. 3d. Unity of effect for each cause. 4th. Immutability of the relations between cause and effect, subordinated to the consent of the organism, and 5th, the invariable reproduction of the same kind.

Microbic diseases then, are not specific, for it is precisely the truth that specific diseases want the microbe characteristic. Then, all one can say is, that the causes that put in operation spontaneity, modify the anatomical elements, and consequently, the conditions of existence of microbes. Autoinfection constitutes the majority of microbic diseases. Then the domain of morbid spontaneity is vast. For specific maladies the consent of the organism is necessary, and it is to its modifying capacity that are due the different varieties observed. In fine, there are two conditions, the modifying capacity of the organism, and morbid spontaneity remain indispensable to the constitution of diseases. J. A. C.

SOCIETY REPORTS.

REMARKS OF DR. TERRY OF UTICA IN REFERENCE TO THE HOMŒOPATHIC COMMISSION IN LUNACY BEFORE THE LEGISLATURE OF THE STATE, MARCH 9TH, 1893.

It appears that the present lunacy commission has made itself obnoxious to followers of the Homœopathic faith, who represent over a million of people and who pay over one-third of the taxes of the State. For twenty years the Middletown State Hospital, an institution chartered by the State for the exclusive use of the patrons of the Homœopathic school, has treated patients with such success that as a matter of State record it shows the lowest mortality and highest rate of cure. Patients of all grades have been received, the wealthy paying for luxuries and extraordinary room as in any hotel. By this method the hospital was quite self supporting, and as one can readily see, so much taxation was saved the State, and especially the poor. The lunacy commission has changed all this, infringing on the chartered privileges granted the Middletown State Hospital, and limiting the charges to ten dollars per week. It is the same old story of the strong attempting to crushthe weak, of ostracism and a display of power. The Homœopathic profession claims the same suffrage, the same justice which the State has given previously in granting to this school of medicine its county and State societies, its hospitals and colleges, and lastly a State board of medical examiners. Now each school has its board, the standard being the same for each. In line with this and in further justice to a school whose wants have been granted by the State, that profession asks one more favor; for its complete indpendence and for entire control of its lunacy affairs. It asks in the name of over one-third of the people of this State, believing that this great school of medicine is entitled to all the rights, privileges and dignity of independent administration of all its affairs. Finally, as the Allopathic profession would not like a commission of another school to have jurisdicion over any part of its work, it must not be expected that men of equal education, and born under the same flag of freedom and justice, could tolerate a similar surveillance.

TRANSLATIONS, GLEANINGS, Etc.

The Bicycle as an Adjuvant. (By W. S. White, M. D., Chicago, Ill. *Clinical Reporter.*)—I wish to bring before you to-day a subject which is not being much discussed among the laity, and as a physician every one of you should be able to talk and advise on the subject understandingly. The bicycle is not only a gymnasium, but also a very fine piece of scientific work. The accurate bearings and fine workmanship of a good wheel are always an admirable sight to behold, and their running qualities a great surprise. As a gymnasium it cannot be excelled. The bicycle will exercise every muscle of the body, and do it in a very mild, scientific and enjoyable manner. Just watch the movement of the wheels, handle-bars and all the belongings when in motion, and you can, if your subject be stripped, see every muscle having its joyful exercise. Even the muscles of the eye are not exempt, for the continual outlook for good and clear roads is a very healthy exercise for these delicate muscles, which are so much abused by artificial light. After causing contraction and relaxation of the muscles, which the riding of a wheel of necessity does, the circulation is equalized. No other exercise is capable of so little fatigue and so much good as that obtained by riding a first-class bicycle. You will ask why I recommend only the high grade wheels. My reply is simply this; that cheap wheels are not made for the public benefit, but to enrich the manufacturer. They generally run hard.

By sitting upright in the saddle, the lungs get their full play, and the minute air-cells beeome rejuvenated with pure, fresh air. Many cases of incipient phthisis have been permanently cured and advanced cases benefitted by this method of exercising.

Much fault has been found with the saddle of the bicycle; but in every instance where damage has been done by the same it can be traced directly to the rider and not the saddle. It is often the case that a rider knows nothing about the adjustments of the wheel on which he or she rides, and thus injuries are caused through ignorance. The saddle can be so adjusted that a person can sit on the tubera ischii and have very little pressure upon the perineum. Let every rider keep the bowels well regulated, and he or she can ride when and where they choose without causing any irritation whatever of the rectum. All the damage done to the rectum is due to neglect on the part of the rider, in not observing the common laws of health.

A mass of fecal matter in the rectum causes irritation and then engorgement of the hemorrhoidal veins in riding the bicycle, just as it does at any other time. Therefore, when properly cared for, hemorrhoids and other troublesome diseases of this nature can be readily prevented.

Urethritis and cystitis are very seldom met with in good wheelmen. and why? Because they keep the bladder empty and do not allow the pommel of the saddle to press upon the perineum with great force. These are the facts as observed among professional wheelmen.

Pregnancy is made easy, and why? The perineal muscles are developed, and when parturition comes. they are in such a healthy state that relaxation is brought about with the greatest ease. I have attended three ladies who have ridden the bicycle up to the seventh month, and find that it facilitates labor. Two of the above were primiparae, and each one had an easy time, with no lacerations.

The last case was that of a young lady eighteen years of age, 4 feet 10½ inches in height, and weighing 88 lbs. She rode her wheel the last time on Christmas day. At 9 o'clock P. M., February 1, 1892, pains began; I arrived at 10:30 and at 12 the baby was born—a strong, healthy boy of 8 lbs; placenta followed speedily; exact time was three hours and fifteen minutes. The perineum intact and not even a crack in the fourchette.

All manner of uterine disorders can be helped by the development of the pelvic anatomy. I have known and seen obstinate cases of leucorrhœa of years' standing cured after bicycle riding. The wheel simply acts as an ad-

juvant, and assists medication, internal or local, to take proper effect and thus produce a cure.

In nervous disorders the bicycle cannot be too highly spoken of. All sorts of nervous diseases are now being treated by nature's methods. Massage and exercise generally, instead of electricity.

I am a club member, a rider and also a racer; I have never been injured or in any way inconvenienced by riding the wheel. During the early spring, summer and fall I ride my Columbia Safety in making many of my calls, especially long distance visits, as it consumes less time, and I always feel good after a spin on the bicycle. I have spent my last two summer vacations on the wheel, traveling through Northern Illinois and Southern Wisconsin. When I began to agitate the bicycle question four years ago I was laughed at, but I now have the pleasure of seeing some of my most bitter opponents mounted upon "steel chargers" enjoying themselves, and wishing they had taken the hint before.

The Diagnosis of Chronic Bright's Disease. (By J. D. Jones, M. D., *New York Medical Examiner*, Oct. 1892.)—When Richard Bright first described "Bright's Disease" it was a very simple affair. But one form was recognized. A man who was anemic and dropsical and passing albuminous urine was said to have "Bright's Disease of the Kidneys." Further study and investigation made the subject as complex as it had been simple before. About ten years ago—when we attended lectures—they used to describe the large white kidney, the small white kidney, the amyloid kidney, the large red kidney and the small red kidney—two varieties of the latter, one corresponding to the atrophic stage of the large variety, and the other to what is now known as the cirrhotic kidney—and the clincial description was made to tally with the morbid anatomy.

To-day the whole subject has been very much simplified again. We know now that the difference between the large red and the large white kidney is simply one of degree of engorgement with blood, and that the small red and the small white varieties are only a later stage or the stage of atrophy of the two former varieties, and that the amyloid kidney is only one form of chronic parenchymatous nephritis with the peculiar amyloid degeneration of chronic suppuration. So the pathologists now classify the lesions of chronic nephritis into two classes, viz: Chronic parenchymatous nephitis and chronic interstitial nephritis, and in speaking of diagnosis we will follow the same classification, for the two types differ more clinically than do the gross or microscopic appearance of the kidneys.

We will first consider chronic parenchymatous nephritis. I believe that most physicians diagnose this form correctly and early. Although none of the symptoms, with the exception of albuminuric retinitus, is peculiar to Bright's disease, yet the anemia, the dropsy, the persistent headache and nausea, the dyspnœa, etc., when taken together will nearly always arouse the suspicion of Bright's disease, and lead to an examination of the urine. In this form of nephritis this will nearly always furnish ample proof of the presence of disease of the kidneys. There has been much discussion of late as to the significance of albuminuria, but the best authorities agree that a definite amount of albumen persistently eliminated with the urine must be regarded as something pathological. As to the best method of detecting the presence of albumen in the urine, many methods are given in the books, but the heat and nitric acid test, so familiar to you all, is as good as any and answers every purpose. Two mistakes may be made on heating the urine; the triple phosphates yield a precipitate or rather a cloudiness very much like that of albumen, but the addition of a few drops of strong nitric acid will redissolve the phosphates, while it will intensify the albuminous deposit. Again, there may be an albuminous deposit from the presence of pus or blood mixed with urine outside the kidney and known as spurious albumnuria. If there is enough blood or pus the red color of the one and the characteristic tenacious sediment of the latter will enable the naked eye to detect the source of the albumen. If the quantity of either is small, the microscope should be used and the presence of blood cells or pus corpuscles will settle the question. If the urine is albuminous it should be allowed to settle in a conical glass and the sediment examined for casts. The presence of these is proof positive of a nephritis. A great variety of these are described and pictured in the books, but the hyaline cylinders are the commonest and most important forms, and are really the ground work of all the other varieties. They are perfectly homogeneous, colorless, and are formed by the coagulation of the exudation into the uriniferous tubules. If there is no desquamation of the epithelium lining the tubules, the epithelial cells adhere to the hyaline cylinder of coagulated albumen, and we have the so-called epithelial casts. If the cast is covered with red blood corpuscles it is evidence of hemmorrhage in the kidney itself. Again, fatty and granular casts point to fatty and granular degeneration respectively of the epithelial cells. And so casts not only prove absolutely that there is a destructive inflammation going on in the kidney, but their varieties tell a great deal about the character of the process going on.

We now come to the consideration of chronic interstitial nephritis—the other variety of chronic Bright's disease. I said it was the rule for chronic parenchymatous nephritis to be correctly diagnosed, and that early in the history of the disease. I regret to say it is the exception for a correct diagnosis to be made in this form, at any rate early in its history. Many of these cases die of pneumonia or cerebral hemorrhage—to which they are particularly liable—without the kidney lesion ever being suspected. The symptoms are never obtrusive as in chronic parenchymatous nephritis, but may remain obscure for a long time. As one author says: "Even an advanced grade of contracted kidney may be compatible with great mental and bodily activity." Simultaneously with the atrophy of the glomeruli of the kidney a remarkable change takes place in the blood vessels which has not been satisfactorily explained so far. The walls of the arteries become thickened so that the vessel, when empty, can be felt by the finger. It requires greater power on the part of the heart to force the blood through the hard, inelastic vessels, consequently its walls, especially of the left ventricle, undergo hypertrophy. The pulse is hard and incompressible, and it is by these symptoms that this condition of the kidney is recognized in its earlier stages. About five days ago I saw a man sixty years of age who had been taken with colicky pains in the right side the night before. This condition of "high arterial tension" was so marked in his case that it led me to examine his water. I found that it contained considerable albumen, blood corpuscles and plenty of granular casts, showing that he is suffering from renal cirrhosis, with probably a stone in the right kidney. But an examination of the urine will not always yield evidence of the disease, especially early in its history. As a result of the raised blood pressure, a larger amount of urine is passed, and that of lower specific gravity than normal. This is a compensatory process, the portion of the kidney remaining intact under the increased force of the heart's action doing the work of the parts that have atrophied. But the urine at this stage may contain no albumen or casts. I have had under my care since last December an old man with marked arterial sclerosis. The prominent symptom in his case has been asthma. I have tested his urine every week since that time with heat and nitric acid, as I regarded the asthma as uremic, but have never been able to find a trace of albumen. Last week his face and ankles became edematous and his urine now contains an abundance of hyaline casts, but still there is no albumen. However, as the disease advances, the quantity of urine diminishes. It contains albumen and casts. The hypertrophied heart wall undergoes degeneration, and dilatation follows with a weak, rapid, irregular pulse and general anasarca. If the patient lives to reach this stage, the symptoms will point to kidney disease, the urine will be examined and the diagnosis made. For recognizing this

form of the disease in its earlier stages I can give you nothing better than the terse statement of Prof. Osler, who says: "In a patient with increased pulse tension (particularly if the vessel wall is sclerotic), with the apex beat of the heart dislocated to the left, the second aortic sound ringing and accentuated, the urine abundant and of low specific gravity, with a trace of albumen and an occasional hyaline or granular cast, the diagnosis of interstitial nephritis may be safely made. Of all the indications that offered by the pulse is the most important. Persistent high tension, with thickening of the arterial wall by a man under fifty means that serious mischief has already taken place, that cardio-vascular changes are certainly, and renal most probably present.

Lawson Tait on the Treatment of Peritonitis.—Years ago I was driven to the determination to discontinue the use of opium by the mouth after abdominal operations, for two reasons; first, its action on the intestines is most certainly to modify and even suspend vermicular movements; and secondly, it masks the real condition of the patient. One dose of morphine, given under the skin immediately after the operation, is all that my patients ever get, and the bulk of them do not get that.

Regarding the intolerable thirst that follows the opening of the peritoneal cavity, I have come to look upon it not as an indication for the administration of fluids, but rather for withholding them. Ice is one of the things that should be banished absolutely from the sick room. It never acts in any other way than to increase thirst.

Again, if nausea sets in on the third or fourth day, or at any time after, all food (and in that I include water) is absolutely stopped for twelve hours or even longer if necessary. I was driven to this by the uniform experience that all drugs employed for the arrest of vomiting were absolutely futile; that any food given came back only altered by biliary admixture. Further, I was influenced by the perfect certainty that nothing could possibly be digested or absorbed by the stomach so long as bile was being poured into it.

I have therefore a belief that the starvation and withholding of fluid prevents the mechanical stasis of the circulation in the intestinal coats, which appears to me to be the initial stage of the fatal process of peritonitis, and this preventive measure I endeavor to assist by stimulating the peristaltic movement. I have tried a vast number of different kinds of enemata—some suggested by my own thought and others suggested by ingenious friends—but I have always gone back to soap and turpentine. It is the business of any nurse watching one of my abdominal sections to note every six hours a set of four conditions—the pulse, the temperature, the occurrence of distension, and the passage of flatus *per anum*. So soon as the latter is freely and naturally established our anxiety ends, though our watchfulness is unremitting. The want of such passage for twenty-four hours after an operation, especially if accompanied by the slightest suspicion of distension, is dealt with without fail by the nurse herself, on her own responsibility, by the administration of a turpentine enema. If the turpentine does not answer, the nurse reports, and a mild saline purgative is ordered—generally a seidlitz powder—and this is repeated every four hours until it acts. If the distension increases, we never rest until we have had the bowels moved, and then our anxiety is nearly always at an end and our efforts rewarded by recovery. But above all things there must be no time lost, and nobody who may be called into consultation by anxious friends must be permitted to write a prescription and try some favorite mixture.

When called into a case of well-established peritonitis I always urge a trial of this treatment, because the stage may not have passed at which it may still be effective, but the chances are that it has. I have never said that the purgative treatment will cure peritonitis, for peritonitis, once it is completly established, is a practically incurable disease, and most uniformly fatal. Of this I am certain, if you subject the patients (not the peritonitis) to the purgative treatment, the number who will go on to incurable peritonitis will be fractional compared to what will be the result if they are left alone or submitted to any other treatment.

The practical outcome of my empirical experience is this, that the purgative treatment of peritonitis or threatening peritonitis, if it be promptly brought to bear on the case, will gain the all-important time, which will eventually turn the scale in favor of the patient.—*British Medical Journal.*

The Eye in Diagnosis.—Attention to the eye symptoms will often result in a physician looking for other signs, and this may lead to the detection of a state of affairs hitherto unsuspected.

Edema of the lids is the first thing noticed in the examination of a patient. This may mean conjunctivitis, a premonitory symptom of coryza, the simplest fevers, hay fever, arsenical poisoning, some lesion of the heart, lungs, or kidneys. When administering arsenic this edema is a valuable sign as showing that the drug is being given in excess of the bodily powers to eliminate.

Styes show an anemic or strumous condition, or derangement of the digestive apparatus or organs of reproduction. They are also found in certain forms of eye strain.

The same conditions that produce styes may cause that chronic inflamed condition of the lids termed blepharitis marginalis.

Ptosis, while due to inflammation of the lids, tumors, or erysipelas, is also frequently indicative of brain lesion with paralysis of the third nerve.

Blepharospasm may occur during mental excitement or an epileptic seizure; it may also be found in chorea or hysteria.

Marked protrusion of one eye would probably mean a new growth in the orbit; of both eyes, exophthalmic goitre. Inability to move the eye outward would lead one to suspect paralysis of the sixth nerve. Paralysis of the sixth nerve, with hemiplegia of the opposite side, points to a lesion at the pons varolii—usually on the same side as the eye affected.

The fixed stare of some forms of hysteria and insanity are well known; also the rolling of the eyes during convulsions and approaching dissolution.

The cornea and conjunctiva are often red and injected or have a peculiar appearance. In diphtheria the membrane sometimes forms here, though rarely. The reddish appearance in hay fever, scarlet fever, measles, and from an overdose of the iodides is familiar to all of us. Phlyctenules show a depraved condition of the system and improper diet. Painless ulcers on the cornea generally indicate a lesion of the fifth nerve. In jaundice the conjunctiva becomes of a brownish hue; in Addison's disease it looks lustreless and dark-colored.

Arcus senilis in the young or middle aged is often an accompaniment of fatty heart or fatty degeneration of other organs.

Nystagmus—that rapid involuntary movement of the eyes is a sign of third or sixth nerve paralysis, or a promonitory symptom of disseminated sclerosis. It is also found where the eyes are of unequal refraction.

The pupil should be carefully watched. It is dilated in hysteria, hypochondria, lead-poisoning, hydrocephalus, paralysis of the third nerve, reflex irritation from seat worms, and after the administration of large doses of the following drugs: Aconite, salicylic acid, strychnia, belladonna, cannabis indica, donium, duboisia, digitalis, ergot, hyoscyamus, quinine, lobelia, pulsatilla, veratrum viride, santonin, stramonium, nitrite of amyl and gelsemium. The dilated pupil during chloroform narcosis is a danger signal.

The pupil is contracted during all early stages of brain disease, cholera, intracranial tumors, cerebral apoplexy, and all lesions of the brain or spinal cord above the dorsal

vertebra. Opium, jaborandi, tobacco, physostigma, carbolic acid, calabar bean and chloral hydrate all contract the pupil when given in large doses. The pupils being of unequal size is almost certain to be a precursory sign of insanity. If the pupil does not react properly, and the iris is slightly altered in color, there is an iritis of syphilitic, rheumatic, or gouty origin. Post-partum, or any other severe hemorrhage, may be followed in from to two fifteen days by loss of eyesight, which is not usually regained.

Subjective Symptoms.—The patient complaining of the eyes being easily fatigued may be the first symptom calling your attention to a general anemic condition. If complaint is made of only seeing half an object, look for beginning paralysis with a lesion or tumor of the brain.

In many cases of parametritis and pelvic cellulitis the eyes are easily fatigued, accompanied by orbital pain and more or less sensitiveness to artificial light.

In spinal disease the patient is apt to have diplopia, photophobia, muscæ volitantes and undue retention of after images.

Loss of accommodation is often present in pathological irritation of the dental branch of the trigeminus, a spur on the nasal septum, intestinal irritation from worms, diseases of the stomach, liver, or intestines.

Hysterical Joints.—Brodie makes the following statement, which Esmarch fully endorses: "I do not hesitate to declare that among the higher classes of society, at least four-fifths of the female patients, who are commonly supposed to labor under disease of the joints, labor under hysterics and nothing else. This statement seems rather remarkable, considering the source from which it comes. Skey, from his experience in St. Bartholomew's Hospital, considers it very common in the lower classes. Dr. Shafer says: 'My experience convinces me that it occurs very frequently in both the upper and lower classes. In other words, I may say that many cases of simulated disease of the articulations are recognized as such, and it is a fair presumption that some, perhaps many, of the remarkable cases of which we hear now and then have been cases which, while presenting all, or at least the more suggestive symptoms of the lesion, were simply in a state of neuromimesis.' Dr. Gibney remarks that it is not limited to adolescence, but occurs very frequently in children. During my service as house surgeon in the N. Y. Orthopedic Hospital, it was not an unusual occurrence for such cases to be admitted into the wards, being considered true articular disease on their admission, and in many cases the diagnosis would not be changed until they had been under observation some time."

The Dust of Cities.—Lately Dr. L. Manfredi has made an elaborate investigation of the dust of the streets of Naples. His results are given by the *British Medical Journal*, and are worthy of remembrance. The number of microbes of all kinds he found on the average to be 761,521,000 per gramme. In those portions of the city under the best hyginic conditions, viz., the cleanest, the average number of microbes was only 10,000,000 per gramme. In the busiest thoroughfares the average rose to 1,000,000,000, and in some of the dirtiest streets it rose to 5,000,000,000 per gramme. In this boundless ocean of life, he found a large number of the pathogenic organisms, and the unhealthfulness of the street was in proportion to the number of microbes in the dust. He tested carefully the infective power of the dust, and obtained positive results in 73 per cent. of the experiments. Of forty-two cases in which he communicated disease to Guinea pigs by inoculating them with the dust of Naples, he found the microbe of pus in eight, the bacillus of malignant edema in four, the bacillus of tetanus in two, the tubercle of bacillus in three, besides several others which had the power of inducing fatal septicemia in the Guinea pigs on which they were tried.

This is a fearful arraignment of the dust of cities, as it is quite certain that Naples differs from other cities only in degree.

The Transmission of Typhoid Fever by the Air.—Investigations on this subject have been made by Dr. Licard, of Beziers. His plan of experimenting was to have patients suffering from this disease breathe through tubes into water that had first been sterilized. Specimens of water thus treated were frequently found to yield the bacilli under cultivation. The bacilli were not always found, but this is not a matter of surprise when it is considered that the best bacteriologists frequently fail to find them under conditions strongly suggestive of their presence. Dr. Licard's results were, however, sufficiently uniform to warrant an inference that the expired breath of typhoid patients, like that from those having typhus, may serve as a channel for fever infection. The vast majority of typhoid infections have their origin in a contaminated water supply, but every observer has been puzzled more or less by cases of the disease which have arisen apart from any known inculpation of the drinking water. These cases of obscure origin may originate from two cases whose bacillar contact is atmospheric—not simply by means of the breath of the sick, but also by emanations from sewers, cesspools, and other receptacles of typhoid dejections.

DIETETIC THERAPEUTICS.

Diet in Ulcer of the Stomach.—Dr. Roux states (*Journal d'Hygiene*) that we should choose foods which are digested in the intestines—milk, eggs, starches, fruits and green vegetables. Farinaceous substances and eggs should constitute the chief diet. The meal of lentils is preferable to potatoes and beans. Among green vegetables salads are excellent; green peas, turnips and carrots should be mashed before eating. Light puddings are easily digested, especially if they contain eggs.

Cocoa for the Voice.—Cocoa is the most beneficial for singers. It should never be made too strong, and those cocoas are best that have been deprived of their oil. Avoid alcoholic beverages.

RETROSPECTIVE THERAPEUTICS.

By Alfred K. Hills.

Peroxide of Hydrogen in Cancer of the Uterus (G. W. Kaan, M. D., *Boston Med. and Surg. Journal*, April 7, 1892).—The value of peroxide of hydrogen in washing out sinuses and abscess cavities, has led me to use it recently as a vaginal injection in cancer of the uterus; and with gratifying results. My cases have been few, but in each the distinctive cancerous odor was noticeable about the patient before the use of the peroxide of hydrogen, and absent afterward. It seems to me that the injections have had some curative action. Regardless, however, of any value it may have as a remedy, its use as a deodorizer, and this without substituting another odor for the cancerous one, makes it of inestimable worth in adding to the comfort of the patient, where palliative treatment alone is all that remains.

The method of using has been to take about an ounce of the peroxide of hydrogen and an equal quantity of water, warmed by being placed in a pan of hot water, and inject through a soft rubber catheter, so that the injection shall be sure to reach the back part of the vagina. Such an injection once or twice a day has been sufficient.

Electric Baths for the Treatment of Syphilis.—At the General Hospital of Vienna, M. Kronfeld has found that the employment of electric baths causes a more complete and efficacious absorption of mercury than other methods of administering the drug. More mercury is eliminated in the urine; no albuminuria is caused; polyuria is rare. The patients are stated to be cured in from two to four weeks after having taken from ten to twenty-five baths.

Symptoms of mercurial poisoning must be looked out for in this as in other modes of using the drug.

Asafœtida as a Remedy for Habitual Abortion.—The *Centralblatt fur Gynakologie* for March 5th contains a summary of an article by Dr. Guido Turazza, of Padua, who gives his own testimony, together with that of several other Italian physicians, in favor of the efficacy of asafœtida as a preventive of abortion. A pill containing about a grain and a half of the drug is given once in two days at first, and gradually at longer intervals until finally one is given only every tenth day. The author regards asafœtida as a good remedy in the nervous derangements of women, and remarks incidentally that it has the advantage of regulating the action of the bowels.

Convulsion Treated by Compression of the Carotid.—In the *Lancet* of January 2, 1892, there was an annotation giving an account of Dr. Leopold Roheim's treatment of eclampsia by compressing the carotid. Having Roheim's treatment fresh in mind, Dr. W. C. Hearnden, of Surrey, England, used the same treatment with success in a case of convulsion following a protracted attack of influenza, and due, as he believed, to embolic plugging in the left hemisphere with hyperæmia of the right, as the eyes were turned to the right side. In a few seconds only the twitchings began to cease, then the breathing grew slower and deeper, and in not more than a minute and a half or two minutes the face grew calm, the eyes regained their position, and there was an attempt on the patient's part to wipe the lips with the sound hand. He then left off the compression. For a minute or two the patient went on breathing calmly, then suddenly the eyes went up to the right, the face twitched, the breathing became again puffing, and the body was convulsed. He immediately compressed the carotid again as firmly as possible, and in less than two minutes the patient came out of the fit, gave him her hand, and raised herself up in bed, and although dazed, was still sufficiently clear to attempt to put out her tongue when told to do so. He left her to the nurse, and she had no return of the fit. The writer knew of no other treatment that could have been adopted in an emergency that would have so rapidly relieved the patient.

Arsenic in Pernicious Anemia.—Dr. E. A. Barton (*Lancet*, August 8, 1891) reports the following case of pernicious anemia, which was relieved by the prolonged administration of arsenic. The patient, a coachman, exhibited all the usual signs of pernicious anemia, and a careful examination of the blood showed that the corpuscles numbered only 18 per cent. The corpuscles varied in size, were soft and plastic, and formed rouleaux readily. There was no leucocytosis. He complained of being unable to read, and examination showed large hemorrhages into the retinæ. Five minims of Fowler's solution of arsenic were given thrice daily, together with a generous diet. The week after the arsenic treatment was begun the patient had a fainting fit, and the next morning he volunteered the statement that he saw red color when looking at anything white. A fortnight after the commencement of the arsenic there was no further bleeding from the gums; the patient declared himself stronger, and was able to move about the room. In three weeks he was able to walk half a mile without fatigue, and in a month returned to work. The corpuscles on January 16th being 76 per cent., and the hemoglobin 60 per cent. The hemorrhages into the retinæ had entirely disappeared, except for a slight blur on the right side. He continued the use of the arsenic for ten weeks from the commencement.

Ethylene Bromide in Epilepsy.—Dr. J. Donath (*Therap. Gaz.*, August 14th 1891) recommends ethylene bromide as a substitute for potassium bromide in the treatment of epilepsy. The objection to the prolonged use of the potassium salts is that they affect the skin, mucous membranes and general nutritive processes injuriously. Ten cases of epilepsy are reported, which have been under observation for several months, and these would indicate that ethylene bromide reduces the attacks both in severity and frequency. Ethylene bromide must not be confounded with bromide of ethyl. It is a light-brown-colored liquid, and is most readily administered in milk in doses of 3 to 15 drops three times daily.

Nutmegs in Hemorrhoids.—According to the *Hom. News*, the common nutmeg employed in the form of an ointment gives prompt and permanent relief in itching and painful piles. It may be employed as follows:

℞ Pulv. nuc. moschat ..... ʒ ii
Acid. tannic ..... ʒ i
Petrolot ..... ʒ i

Treatment of Typhoid Fever.—I have had occasion, says C. A. Jennings, M. D., Salisbury, Mo., quite recently to employ Katharmon in a typical, but obstinate case of typhoid fever, and feel certain that marked and decided benefit resulted therefrom.

The pathalogical factor concerned in the evolution of this disease is now generally admitted by scientists to be a specific germ, the bacilus typhosus, whether of the classification of Recklinghausen, Eberth or Klebs, we feel is of little importance to us as practical physicians at this time.

To dislodge or antidote this vitalized organism giving rise to typhoid fever, requires of each physician promptness and an intelligent use of germicidal remedies of decided and definite therapeutic force and efficiency. In the special case above referred to the disease had existed for a period of six weeks, the temperature curve ranging from 100° to 101° F. during the morning hours to 102° to 103° in the evening, and thus continued persistently regardless of the remedies used. I had given the salicylates, turpentine and milk punch *ad libitum* and had daily used a warm water enema to keep the bowels clear of accumulated feces, the true source many times of the contagium of this disease. My patient failed to improve, and as the usual routine of remedies laid down in the books had been exhausted, and had proved valueless in staying the progress of the fever, I concluded as a dernier resort to employ the germicidal remedy, Katharmon, and hence put a practical theory on trial to meet the emergencies of this particular case. I therefore substituted Katharmon in half drachm doses, because of its well established antiseptic and germicidal properties, for all other remedies previously used, and pushed the same vigorously for several days in succession. I at once observed a marked and decided improvement in my patient. The temperature began to decline immediately after Katharmon was employed, and in a few days had reached the normal limit, my patient from this time on making a speedy and rapid recovery.

The Therapeutics of Terraline.—After having made a thorough trial, says Chas. Kelley Gardner, M. D., Huntington, W. Va., of Terraline under a number of varying conditions and over a somewhat extended period of time I desire now to give to my professional friends some of the conclusions to which I have arrived. I cannot recall a single instance in which it has failed to produce all that is claimed for it; therefore, feeling assured I am giving relief to my suffering patient. Terraline stands without a peer to-day in the treatment of all inflammatory conditions of the respiratory tract. I have especially noticed the good results following its use in the following conditions:—

Capillary Bronchitis.—In capillary bronchitis, administered in teaspoonful doses, it modifies the cough, increases the expectoration, and generally improves the patient.

Phthisis Pulmonalis.—In phthisis pulmonalis I have always found terraline superior to cod-liver oil. It does not simply palliate the cough; it allays the pulmonary irritation, improves the digestive and assimilative powers, and overcomes the repugnance to food so often observed in this disease. I invariably prescribe it with cresote as follows:

℞ Cresote ... . ʒ i ss
Terraline ..... ʒ ii
Sig. M. xii

One teaspoonful three or four times daily.

This can be modified by prescribing double the amount of terraline and administering two teaspoonfuls at a dose.

Chronic Bronchial Catarrh.—In chronic bronchial catarrh it has never disappointed me. In fact I have even received the most flattering and most positive results, exceeding often my highest expectations. In the croupy coughs of children and in croup itself it is prescribed with the greatest benefit.

A Reconstructive.—Terraline is a reconstructive and tissue builder of great power. Some months ago I prescribed it in a case of general anemia in an excessively chloretic girl. The improvement was soon marked and progressive. She used the remedy three months and gained in weight five and one-half pounds each month.

Weak Stomachs and Fastidious Patients.—As terraline is so easily digested and is entirely tasteless it can be administered indefinitely to the weakest stomach without creating a repugnance to its use, a most decided and important desideratum. Children and fastidious females take it readily, for as stated it is without taste, is odorless and it does not produce eructations. In conclusion I would say that in terraline we have a product of purified petroleum, without the disagreeable taste and odor of crude petroleum and yet with all the medical qualities fully preserved.

Oil of Wintergreen in Acute Urethritis.—Dr. John A. Wyeth, in the *Southern Medical Record*, recommends oil of wintergreen, in six drops doses three times a day, as a more efficient and safer remedy for acute urethritis than any other advised for this purpose. Injections of any kind are not to be used, as they generally do more harm than good.

Cannabis Indica as an Anodyne and Hypnotic.—Dr. J. B. Mattison, in a paper read before the Kings County Medical Society, says: "Indian hemp is not a poison. This statement is made because the writer thinks a fear of its toxic power is one reason why this drug is not more largely used. This mistaken idea lessens its value, because it is not pushed to the point of securing a full therapeutic effect. This is a fact . . . a prolonged personal experience, compassing the history of many cases—men and women—and hundreds of doses, ranging from 30 to 60 minims of the fluid extract, has never brought any anxiety along toxic lines.

Its most important use is in that opprobrium of the healing art—migraine.

In genito-urinary disorder it often acts kindly—the renal pain of Bright's disease; in vesical spasm; retention of urine and chordee; and it calms the pain of clap equal to sandal or copaiva, and is less unpleasant. The distress of gastric ulcer and gastrodynia are eased by it, and in other and varied nouralgias it serves one well. In some cases of advanced phthisis and other cureless disease it will bring euthanasia by allaying pain and unrest.

My experience with hemp covers more than a decade, many cases, and several pounds of fluid extract. It is proper to state that these cases have been solely habitues or ex-habitues of opium, chloral or cocaine. In these, often, it has proved an efficient substitute for the poppy. Its power in this regard has sometimes surprised me. Both sexes took it, and with some no other drug anodyne was used. One of these—a naval surgeon, nine years a ten-grains daily subcutaneous morphia taker—recovered with less than a dozen doses. My oldest female patient—64—found its service complete. Its action has varied, as some cases respond more fully. This during the early abstinence time. Later, it has done good in the post-poppy neuralgia, especially the cranial kind, and it has calmed mental pain and unrest.

My results prove it a satisfactory soporific, even oftener than as an anodyne. The sleep has been sound and refreshing.

Writers on cannabis refer to certain peculiar effects—which, in our thinking, are more often peculiar to the patient—that may here be noticed. One is a mild intoxication. I say mild, because the hashish, assassin-like, running-amuck form is less fact than fancy. It is said temperament largely determines the mental effect, whether it be grave or gay, merry or mad. Most of my cases—when such—have been in a merry mood. Of the hundreds of times given, only once did it excite to violence. . . . Catalepsy is a rare sequence.

Failure with hemp is largely due to inferior preparations, and this has had much to do with its limited use. It should never be called inert till full trial with an active product proves it.

Merck has produced two elegant and efficient extracts—cannabine tannate and cannabinone. They are essentially hypnotic. In hysteric cases not calmed by chloral or opium, the former acts specially well. In the small dose of one grain it has brought sleep when one-third grain morphia failed.

Another cause of failure is too timid giving. I am convinced that the dose of books is often too small. The only true way is: once a good extract, push it to good effect. My doses have been large—40 to 60 minims of the fluid extract. Both sexes have taken them—women frequently—with no other effect than quiet and sleep. I think, for many, small doses are stimulant and exciting; large ones, sedative and quieting. They are the outcome of an experience with smaller doses that failed of effect desired. They prove hemp harmless, and they add proof to the opinion of most neurologists, that, once a nervine needed, it is often better to give one full dose than several small.

The tincture—three grains to the drachm—may be given in doses of twenty to sixty minims; the fluid extract, five to twenty minims; the solid extract, one-half to two grains; tannate of cannabin, five to fifteen grains, cannabione, one-half to one and one-half grains; cannabinone with milk sugar, five to fifteen grains, and each repeated or increased till a full effect is secured. It is said that in women cannabinone acts twice as strongly as in men. In headache, periodical or long continued, one-half to two grains solid extract may be given each hour or two till the attack is arrested, and then continue in a similar dose, morning and night, for weeks and months. It is important not to quit the drug during a respite from pain.

I close this paper by again asking attention to the need of giving hemp in migraine. Were its use limited to this alone, its worth, direct and indirect, would be greater than most imagine. Bear in mind the bane of American women is headache. Recollect that hemp eases pain without disturbing stomach and secretions so often as opium, and that competent men think it not only calmative but curative. Above all, remember the close genetic relation of migraine relieved by opium to a disease that spares neither sex, state nor condition.

Indian hemp is not here lauded as a specific. It will, at times, fail. So do other drugs. But the many cases in which it acts well entitle it to a large and lasting confidence.

My experience warrants this statement: cannabis indica is often a safe and successful anodyne and hypnotic.

Remedies for Aphthous Stomatitis of Children.—(*Hom. Journal of Obstetrics*).—In the aphthous sore mouth of infants there are three remedies which present quite similar symptoms. Under borax this inflammation of the mouth appears as a concomitant of a diarrhea in which the stools are usually green, though they may be soft and yellow, but always containing mucus. The mouth is hot and the mucous membrane around the aphthæ bleeds easily. The child lets go the nipple and cries as with pain, or else refuses the breast altogether. Underlying this sore mouth is an ill-nourished system. The face is pale, and there is the well-proven symptom, "the child dreads a downward motion." Bryonia has also cured infant's sore mouth, but the characteristic symptom corresponds with the action of this drug, in depriving the mucous tract of secretion. This characteristic symptom is, "the child refuses to nurse or makes a great fuss about it, but so soon as its mouth is moistened, it takes hold of the nipple and nurses energetically." Mercurius comes in as a substitute for borax when there is salivation with the sore mouth. Water dribbles from the child's mouth. The diarrhea is accompanied by the characteristic well-marked tenesmus, which is sufficient to distinguish mercury from borax.

Kneipp's Water Cure.—Dr. A. Schleichner (*Zeitsch. F. Therapie*) describes the system of hydrotherapeutics practiced by a priest named Kneipp in a small Bavarian village, who, like Priessnitz, has created quite a furore in Germany, and has gained numerous adherents. Kneipp's system consists in certain hydrotherapeutic measures, the administration of simple household remedies, and the regulation of the patient's mode of living. To strengthen the nervous system, the patient is advised to walk on moist grass or in a bath-tub filled up to his ankles with cold water. The cold pack, consisting of several thicknesses of coarse linen, is employed in certain cases, the sheet being wrapped around the entire body from neck to groin or applied to the abdomen or back; it should not remain longer than an hour. As regards the use of baths, the cold footbath should last from one to three minutes; the warm foot bath has a temperature of 99 degrees Fahr., and lasts from ten to fifteen minutes, and is followed by a cold foot-bath of half a minute's duration. A half-bath is administered by letting the patient stand, kneel or sit in water while the back and chest are washed; it should not last longer than three minutes. The sitz-bath is taken before going to bed; its duration may vary from one-half minute to three minutes. If taken warm, it may last for half an hour, and an infusion of herbs is usually added to the water. The full bath, according to Kneipp, is the more effective the shorter its duration, and is mainly indicated in febrile conditions. The warm full bath has a temperature of 90 to 99 degrees Fahr., and consists of an infusion of pine needles. It is followed by cold affusion or washing of the body with cold water. Steam-baths are carried out in a primitive manner, the steam being supplied by a kettle of boiling water. The cold affusion is made with a sprinkling-can from which the sprinkler has been removed; the entire body, or simply the affected parts, may be acted upon; in weak persons the water should be tepid. Another favorite manner of applying water is to sponge the body or affected parts with a wet, coarse towel. This procedure is best done in the morning, and should not last more than two minutes.

Kneipp advises that the patient should drink whenever thirsty, but never large quantities of fluid at a time, and none during the meal. His materia medica consists of simple domestic remedies. As regards the dietary, he is opposed to excessive use of meats; does not interdict wine or beer in persons accustomed to their use, but thinks less favorably of coffee and tea. He urges an abundance of fresh air and exercise, and advocates coarse linen underwear in place of woolen garments.

OBITUARY.

DR. EDWARD H. JANES, Assistant Sanitary Superintendent of the Health Department, died at his home March 13th, in the seventy-third year of his age. Dr. Janes was connected with the Health Department since 1864, and was one of its most efficient officers.

THE death of Col. Elliott F. Sheppard, the, proprietor and editor-in-chief of the *Mail and Express* and one of the leading and wealthy men of the city, fell with startling force upon the friends who met him in friendly and business transactions a few hours before. A simple operation for stone in the bladder was to be performed, and the patient died, it is said, from œdema of the lungs, produced by the inhalation of ether. The patient was supposed to be in perfect health, but with the first inhalation of ether the choking was so marked that it was soon discontinued and efforts made to restore him, which in a short time were so successful that he asked if they were through, but shortly after relapsed into a state of complete unconsciousness and died. It is to be regretted that no autopsy was held, as this alone would have determined the condition of the heart. the kidneys, and the large blood vessels. The case is an unusual one, and has attracted marked attention, not only by the public but the profession generally.

MISCELLANY.

—ANTIFEBRIN.—Gr. 30 to half ounce of vasaline is recommended as an application to felons, burns, etc., to remove pain and congestion.

—The *Womans' Medical Journal*, Toledo, Ohio, enters the field of journalism with an able list of contributors, and a very graceful salutatory.

—We gladly call the attention of the profession to the school of Miss H. M. Rowe, Camellus, New York, for the training of undeveloped children.

—There are no laws regulating the practice of medicine in Maine, Rhode Island, Connecticut, Massachusetts, Maryland, Ohio, Kansas and Utah.

—The 44th annual session of the Medical Society of Georgia will be held in America, April 19, 20, and 21st. The secretary is Dan. H. Howels, M. D.

—Dr. Bleyne's treatment of diphtheria consists in the application of ice upon the neck, and the internal use of ice. He claims that cold destroys the bacillus of diphtheria.

—Dr. Blydell of New York, has invented a micro-stethescope by which he can distinguish sounds of the heart, lungs, blood vessels and other organs which are wholly inaudible to the ear alone.

—It is said that carbolic acid, if dissolved in glycerine or alcohol, is not caustic, whatever be the degree of concentration, A small proportion of water added to the alcohol or glycerine solution will cause it to act as a caustic.

—According to the New York code, a physician can be compelled to disclose the fact that a person was ill and consulted him as a physician for a certain length of time. But the doctor cannot be compelled to disclose the nature of the illness.

—Dr. Brown-Sequard has made 20,000 injections with his sperm fluid during the last three years, and he claims that tbe result has been invariably successful. He considers the system unapproachable for the treatment of weakness and debility.

—At the competitive examination for the eight vacancies for internes of the Cook Co. Hospital, Chicago, the Rush Medical College secured five positions, the Chicago Medical College two positions, and the College of Physicians and Surgeons, one place.

—A successful case of bone-grafting is reported from Allahabad, a solution of continuity in the anterior layer of the frontal sinus having been induced to take on osseous repair by sprinkling the surface with small fragments of the hip-bone of a newly-killed dog.

—There is a block in this city, bounded by Ridge and Pitt, Houston and Stanton Streets, in which 2,985 people live. This is at the rate of a million people to the square mile, and this block is probably unsurpassed for density of population by any other block in the world.

—Mrs. Frances Fisher Wood has been studying figures with the result of finding that nine-tenths of the children of college-bred women survive infancy—a record never before equalled in any age, class or country. Mrs. Wood is herself a Vassar girl and a trustee of Barnard, and the wife of a well-known physician.

—A lady has just taken her M.D. degree at St. Louis, under circumstances of difficulty to which the inferior male creature, fortunately for himself, can never be exposed. A few weeks before the date of examination she presented her husband with a ninth olive branch, and eleven days after the interesting event she was again in her place in the lecture room.